2.7 Transportation/Traffic

The following discussion is based on the *Traffic Impact Study for the Otay Business Park (TM5505)*, dated September 20, 2010, prepared by Darnell & Associates, Inc. The Traffic Impact Study (TIS) is included in its entirety in Technical Appendix H1 of this SEIR.

The term "level of service" (LOS) is used throughout this section. LOS is a qualitative measure used to describe the operational conditions within a traffic stream, and a motorist and/or passenger's perception of the performance of the roadway. The criteria to evaluate LOS conditions vary based on the type of roadway and whether the traffic flow is considered interrupted or uninterrupted. LOS is defined on a scale of A to F, where LOS A represents the best operating conditions and LOS F represents the worst operating conditions. Facilities operating at a LOS A are characterized by free flowing traffic conditions, while facilities operating at LOS F are characterized by forced flow, many stoppages, and low operating speeds.

2.7.1 Existing Conditions

2.7.1.1 Existing Roadway Characteristics

Primary local access to the Otay Business Park property is provided by Airway Road and Siempre Viva Road from the west and Alta Road from the north. All three roads that provide direct access to the Project site are unimproved, dirt roads under existing conditions. Because the Project site is vacant, it generates negligible traffic volumes. There is no vehicular access through the site except for several dirt roads used primarily by U.S. Border Patrol agents.

Provided below is a brief description of existing major roadways in the Project study area. There are no residential street segments within the Project study area. Figure 2.7-1, *Existing Roadway Conditions Diagram*, illustrates the existing roadway network in the Project area and depicts the intersections analyzed in the TIS.

Interim State Route 905 (SR-905)/Otay Mesa Road is an east-west six-lane expressway which extends from Interstate 5 to the City of San Diego Otay Mesa Community. Most of Interim SR-905 is located within the City of San Diego; however a portion of the segment between Piper Ranch Road and SR-125 NB ramps is located in both the City and the County (the existing centerline is the boundary between the two jurisdictions). Approximately one mile east of Interstate 805, there is a break in the route and SR-905 becomes Otay Mesa Road. Interim SR-905 (Otay Mesa Road) is improved to six-lane Prime Arterial road standards from west of Caliente Avenue to approximately Piper Ranch Road. According to the City of San Diego Circulation Element, this segment of Interim SR-905 (Otay Mesa Road) has a roadway capacity of 60,000 average daily trips (ADT) at LOS E. Immediately east of Piper Ranch Road, Interim SR-905 (Otay Mesa Road) provides five (5) travel lanes (2 eastbound lanes and 3 westbound lanes), however; as it traverses easterly towards the SR-125, Otay Mesa Road widens to provide a total of seven (7) travel lanes (4 eastbound lanes and 3 westbound lanes). For analysis purposes, this segment of Interim SR-905 (Otay Mesa Road) was assumed to have the capacity equivalent to that of a six-lane Prime Arterial. For the portion of Interim SR-905 located in both the City and County portions of Otay Mesa, the County of San Diego Circulation Element standards for a six-lane Prime Arterial are employed, which indicates a total capacity of 57,000 ADT at LOS E. From its junction at SR-125 to the international border, SR-905 is a four-lane Major Arterial. The four-lane portion of SR-905 has a roadway capacity of 40,000 ADT at LOS E.

Otay Mesa Road is an east-west roadway, portions of which are located under the jurisdiction of the City of San Diego and/or the County of San Diego. The segment from SR-125 to approximately 1,200 feet east of Sanyo Avenue is located within both jurisdictions, with the centerline of the existing roadway serving as the boundary between the City and the County. The segment of Otay Mesa Road between the SR-125 Southbound ramp and the Interim SR-905 connection is currently constructed to provide six (6) travel lanes. The segment of Otay Mesa Road between the Interim SR-905 connection and Harvest Road is currently constructed to provide five (5) travel lanes. For the purpose of analysis, these segments of Otay Mesa Road were assumed to have the capacity equivalent to that of a modified 4-lane Major Arterial, or approximately 47,000 ADT at LOS E (the half-way point between a 4-lane Major Road and a 6-lane Prime Arterial).

The segment of Otay Mesa Road between Harvest Road and Sanyo Avenue is currently constructed to provide four (4) travel lanes. For analysis purposes, this segment of Otay Mesa Road was assumed to have the capacity equivalent to that of a 4-Lane Major Road, or 37,000 ADT at LOS E. The segment of Otay Mesa Road between Sanyo Avenue and Alta Road comprises a two-lane undivided roadway. The current capacity on the County two-lane segment is 16,200 ADT at LOS E (Light Collector). According to the EOMSP, the existing County Circulation Element, and the proposed Circulation Element for the County General Plan Update, the ultimate classification for Otay Mesa Road between Harvest Road and Enrico Fermi Drive is a six-lane Prime Arterial with a roadway capacity of 57,000 ADT at LOS E. From Enrico Fermi Drive to Alta Road, Otay Mesa Road is ultimately classified as a four-lane Major Road, with a capacity of 37,000 ADT at LOS E.

Enrico Fermi Drive is constructed as a north-south two-lane facility within the County and City of San Diego. The County segment lies south of Otay Mesa Road and north of Airway Road and exists as a three lane roadway. Some portions of this roadway segment currently exist as a two lane roadway. For the purpose of analysis, the County portion of this roadway was analyzed as a Town Collector with a roadway capacity of 19,000 ADT at LOS E. Based on the EOMSP, the existing County General Plan Circulation Element, and the proposed Circulation Element for the County General Plan Update, the ultimate classification for Enrico Fermi Drive is a four-lane Major Road (with additional turn lanes to facilitate freeway access) with a roadway capacity of 37,000 ADT at LOS E. The City segment of Enrico Fermi Drive lies south of Airway Road and exists as a four-lane Major Arterial (capacity of 40,000 ADT at LOS E).

Airway Road is an east-west roadway that is located within the jurisdiction of the City of San Diego (west of Paseo de las Americas) and County of San Diego (between Paseo de las Americas and Enrico Fermi Drive). Between La Media Road and Avenida Costa Azul, Airway Road exists as a two-lane undivided roadway. Between Avenida Costa Azul and Piper Ranch Road, Airway Road widens to a four-lane roadway with a raised median. East of Piper Ranch Road, for approximately 150 feet, Airway Road provides one (1) eastbound lane and two (2) westbound lanes. Just west of State Route 905, Airway Road narrows back down to a two-lane undivided facility with approximately 11-foot travel lanes. Between State Route 905 and Sanyo Avenue, Airway Road is only striped to provide two travel lanes, however, the westbound lane is approximately 29 feet wide, and the eastbound lane is approximately 25 feet wide. Airway Road between Sanyo Avenue and Michael Faraday Drive has been improved to provide two travel lanes in each direction with a raised median. Between Michael Faraday Drive and Enrico Fermi Drive, Airway Road narrows back down to a two-lane roadway. Just east of Enrico Fermi Drive to its current terminus, Airway Road is currently constructed as a four-lane roadway with a raised median. For the purpose of analysis, the

segment of Airway Road between La Media and Sanyo Avenue was assumed to have the capacity equivalent to that of a two lane Collector Road with a capacity of 15,000 ADT at LOS E. The segment between Sanyo Avenue and Michael Faraday Drive was assumed to have the capacity equivalent to the City's classification of a Major Arterial with a capacity of 30,000 ADT at LOS E. The segment between Michael Faraday Drive and Enrico Fermi Drive was assumed to have the capacity equivalent to that of the County of San Diego's Light Collector with a capacity of 16,200 ADT at LOS E. From Enrico Fermi Drive to its current terminus, Airway Road was assumed to have a capacity of a 4-lane Collector (34,200 ADT at LOS E). It should be noted that Airway Road no longer has direct access to State Route 905. Airway Road is ultimately classified as a four-lane Major Road with a capacity of 40,000 ADT at LOS E in the City and a capacity of 37,000 ADT at LOS E in the County.

Alta Road north of Otay Mesa Road is mostly constructed as a two-lane north-south undivided roadway with a capacity of a Light Collector (16,200 ADT at LOS E). The segment of Alta Road between Lone Star Road (Paseo De La Fuente) and Calzada De La Fuente was widened to provide two (2) northbound travel lanes and one (1) southbound travel lane. This segment of Alta Road has a capacity equivalent to that of a Town Collector (19,000 ADT at LOS E). The ultimate classification of Alta Road between Lone Star Road (Paseo De La Fuente) and Otay Mesa Road is a four-lane Major Road with a bike trail within the east side of roadway (capacity of 37,000 ADT at LOS E). The ultimate classification of Alta Road between Lone Star Road (Paseo De La Fuente) and Donovan State Prison Road is a four-lane Industrial Collector with a center left turn lane (capacity of 34,200 ADT at LOS E). North of Donavan State Prison Road, the roadway segment of Alta Road is classified as a four-lane Industrial Collector (capacity of 34,200 ADT at LOS E).

Sanyo Avenue is a north-south facility that is currently constructed as a four-lane undivided roadway between Otay Mesa Road and Airway Road. The roadway segment of Sanyo Avenue between Otay Mesa Road and Airway Road is under the City's jurisdiction and has the classification of a 4 lane Collector (capacity of 30,000 ADT at LOS E)..

Siempre Viva Road is an east-west roadway located under the jurisdiction of the City of San Diego. From west of SR-905 to Paseo de las Americas, Siempre Viva Road is a six-lane facility with a cross-section equivalent to a Prime Arterial (capacity of 60,000 ADT at LOS E). East of Paseo de las Americas to Enrico Fermi Drive, Siempre Viva is a four-lane facility with a capacity of 30,000 ADT at LOS E. Ultimately, this section would be constructed as a six-lane facility with a capacity equivalent to that of a Prime Arterial (capacity of 60,000 ADT at LOS E). Siempre Viva Road is located within the County of San Diego east of Enrico Fermi Drive. Immediately east of the CHP facility, Siempre Viva Road is constructed to provide one (1) eastbound lane and two (2) westbound travel lanes. From the CHP facility to Airway Place, Siempre Viva Road is constructed to provide two (2) westbound travel lanes. For purposes of analysis, the segment of Siempre Viva Road between Enrico Fermi Drive and Airway Place was assumed to have a capacity equivalent to that of a Light Collector (16,200 ADT at LOS E).

Heritage Road is a north-south facility that is located under the jurisdiction of the City of San Diego. Heritage Road immediately north of Otay Mesa Road currently provides two (2) northbound through lanes and four (4) southbound lanes (1 southbound left, 1 southbound through, and 2 southbound right turn lanes). A parking lane is provided along the west side of the road. For purposes of analysis, the segment of Heritage Road just north of Otay Mesa Road was assumed to have the

capacity equivalent to that of a modified 4-lane Collector, approximately 35,000 ADT at LOS E (the half-way point between a 4-lane Collector and a 4-lane Major Arterial).

Britannia Boulevard is a north-south facility that is located under the jurisdiction of the City of San Diego. The segment of Britannia Boulevard between Otay Mesa Road and Airway Road is currently constructed as a four-lane undivided roadway. The current classification of this segment of Britannia Boulevard is a four (4)-lane Collector with a capacity of 15,000 ADT at LOS E.

Upon completion of the SR-905 interchange as part of Phase 1A, Britannia Boulevard from Otay Mesa Road to the curb returns on the north side of Airway Road will be improved to provide three (3) travel lanes in each direction with a painted median. Additional widening will be provided at the SR-905 eastbound ramp to accommodate dual southbound left turn lanes. Therefore, once the SR-905 interchange is completed, the segment of Britannia Boulevard between Otay Mesa Road and Airway Road will have the cross-section equivalent to that of a Prime Arterial with a capacity of 60,000 ADT at LOS E.

La Media Road is a north-south facility that is currently under construction for the SR-905 interchange. La Media Road immediately south of Otay Mesa Road currently provides two (2) northbound travel lanes (1 northbound left, and 1 northbound shared through-right) and three (3) southbound lanes (2 southbound through and 1 southbound right turn land) along with a partially painted median. Just north of Saint Andrews Avenue and the future SR-905 wesbound off ramp, La Media Road provides one (1) northbound travel lane, and tow (2) southbound travel lanes (1 southbound through and 1 southbound right) along with a painted median. For purposes of analysis the segment of La Media Road between Otay Mesa Road and Saint Andrews Avenue/future SR-905 westbound off ramp was assumed to have the capacity equivalent to that of a 4-Lane Collector (capacity of 30,000 ADT at LOS E). La Media Road from Saint Andrews Avenue/SR-905 westbound off-ramp to Siempre Viva Road is currently constructed as a two-lane undivided roadway that has a classification equivalent to that of a 2-Lane Collector (capacity of 10,000 ADT at LOS E). Upon completion of the SR-905 interchange, La Media Road from Otay Mesa Road to Saint Andrews Avenue will still provide two (2) northbound travel lanes (1 northbound left and 1 northbound shared through-right) and three (3) southbound lanes (2 southbound through and 1 southbound right turn lane) along with a partially painted median immediately south of Otay Mesa Road. However, just north of Saint Andrews Avenue, La Media Road will be widened to provide two (2) northbound through lanes, three (3) southbound through lanes, one (1) southbound right turn lane, and a painted median. Therefore, upon completion of the SR-905 interchange, La Media Road from Otay Mesa Road to Saint Andrews Avenue (SR-905 westbound off ramp) is estimated to have a capacity equivalent to that of a modified 4-lane Collector, or 35,000 ADT at LOS E (i.e., the half-way point between a 4-lane Collector and a 4-Lane Major Arterial). Upon completion of the interchange, La Media Road from Saint Andrews Avenue (i.e., westbound off-ramp) to the SR-905 eastbound ramp will consist of a six-lane divided roadway that has a classification equivalent to that of a 6-Lane Prime Arterial (capacity of 60,000 ADT at LOS E). La Media Road from approximately 300 feet south of the proposed SR-905 eastbound ramp to Siempre Viva Road is constructed as a two-lane undivided roadway that has a classification equivalent to that of a 2-Lane Collector (capacity of 10,000 ADT at LOS E).

2.7.1.2 Study Area Roadway Segment Operations

Existing Roadway Segments

Existing daily and peak hour traffic counts are depicted on Figure 2.7-2, *Existing Daily Traffic Volumes*, and Table 2.7-4, *Existing Daily Traffic Volumes for Key Roadway Segments within Project Study Area*. As shown in Table 2.7-4, all of the study area roadway segments were found to operate at conditions of LOS D or better in the existing condition, except for the following five (5) roadway segments:

- Interim SR-905 (Otay Mesa Road), between Heritage Road and Britannia (LOS F)
- Interim SR-905 (Otay Mesa Road) between Britannia and Piper Ranch Road (LOS E)
- La Media Road between St. Andrews Avenue and Siempre Viva Road (LOS F)
- SR-905 from Otay Mesa Rd. to Siempre Viva Rd. (LOS E)

Existing Arterial Roadway Segments

A review of the 24 hour counts sheets for Otay Mesa Road determined that the traffic flow is rather constant between the hours of 7:00am to 6:00pm, compared to most 5-lane and 6-lane roadways which have high peak hour flows in the morning and afternoon. Further it should be noted that the Otay Mesa Port-of-Entry is open 24 hours a day with long lines crossing the border. This results in the spread of vehicles through the day resulting in increased daily traffic volumes. Since level of service based on daily volumes assumes significant increases in traffic counts during the peak hour periods, daily capacity analysis is not particularly accurate for Otay Mesa Road. Therefore, in addition to evaluating the roadway based on daily capacity it was also analyzed based on the Highway Capacity Manual's (HCM) Arterial Segment Methodology utilizing the Synchro software. Since the arterial segment analysis determines level of service based on the average travel speeds that occur on the roadway it provides a more accurate representation of the travel patterns and levels of service for Otay Mesa Road. The results of the analysis are summarized in Table 2.7-5, *Existing Conditions Arterial LOS Summary*, which illustrates the existing conditions arterial level of service summary during the AM and PM peak hours. As shown in Table 2.7-5, all arterial roadway segments along Otay Mesa Road operate at an acceptable LOS C or better under existing conditions. A copy of the Synchro worksheets can be found in Appendix E to the Traffic Impact Analysis (refer to SEIR Technical Appendix H).

2.7.1.3 Study Area Intersection Operations

Existing Intersections – Synchro Analysis

A total of 24 key existing intersections in the vicinity of the proposed Project site have been evaluated to determine their existing levels of service. The 24 intersections within the Project study area along with their respective morning and evening peak hour LOS are listed below in Table 2.7-6, *Existing Key Intersection Level of Service Summary*. As shown, all of the intersections in the study area were found to operate at conditions of LOS D or better in the AM and PM peak hours under existing conditions.

Existing Intersections – Intersecting Lane Vehicles (ILV) Analysis

Since SR-905 and SR-125 are state owned facilities, to meet the requirements of Caltrans, the Intersecting Lane Vehicles (ILV) analysis was utilized to assess the operating conditions of the

intersections along Otay Mesa Road (Interim SR-905) between Heritage Road and the SR-905 connector and the intersections of SR-905 at Siempre Viva Road. Since the control/ownership of Otay Mesa Road (Interim SR-905) between Heritage Road and the SR-905 connector will be relinquished to the City of San Diego once the new SR-905 facility is constructed, the ILV analysis was only completed for these intersections under existing and existing plus project conditions. It should be noted that the ILV analysis is only applicable to signalized intersections.

The Intersecting Lane Vehicle method determines the operating condition of an intersection based upon the number of intersecting vehicles that enter the intersection per lane during the hour (ILV/hr). Where less than 1200 ILV/hr represents stable flow, 1200 to 1500 ILV/hr represents unstable flow with considerable delays possible, and 1500 ILV/hr represents capacity, or stop-and-go operation with severe delay and heavy congestion. Since the upper limits of the ILV analysis is based on the premise of an operating condition of LOS C or better, and since LOS D was considered an acceptable level of service, the ILV analysis is provided for purposes of disclosure and is not utilized to determine Project significance within this SEIR.

Table 2.7-7, *Existing Intersections ILV Analysis*, summarizes the existing conditions ILV analysis. As shown in Table 2.7-7, all state-owned intersections currently operate under stable flow during the AM and PM peak hours.

2.7.1.4 Scheduled or Programmed Road Improvement Projects

The following provides a summary of scheduled or programmed road improvements projects that are assumed in the analysis of Project impacts to traffic.

Capital Improvement Projects

The current County of San Diego's 5-Year Capital Improvement Plan 2008/09 – 2012/13 includes the following three roadway segments within the East Otay Mesa area: (1) Construction of Additional Lanes on Airway Road between Michael Faraday Drive and Enrico Fermi Drive; (2) Construction of Lone Star Road from Alta Road to the west for 0.5 miles, and (3) Widening Otay Mesa Road from Vann Centre Boulevard to Enrico Fermi Drive. Funding for the Airway Road improvements are anticipated to come from Transportation Impact fees, the schedule for completion is to be determined. The Lone Star Road improvements are anticipated to be completed in spring of 2014 with funding anticipated to come from Federal sources. The Otay Mesa Road widening project is anticipated to be completed in spring of 2014 with funding still to be determined. Additional detail about these projects are provided in Appendix B to the Project's traffic study.

Caltrans' Projects

Caltrans currently has two (2) major State Route facility projects in the Otay Mesa Area: (1) State Route 905 and (2) State Route 11. In addition, during the construction of the structures at the State Route 905/Airway Road intersection, Caltrans has implemented a detour to re-route traffic via Sanyo Avenue and Otay Mesa Road. As mitigation of the detour, Caltrans was required to make improvements to the Otay Mesa Road/Sanyo Road intersection and the segments of Otay Mesa Road between Harvest Road and Sanyo Avenue, and Sanyo Avenue between Otay Mesa Road and Airway Road. The following summarizes the project description and schedule for each of these projects.

- State Route 905. The State Route 905 (SR-905) project will consist of constructing a transportation facility from Interstate 805 to the Otay Mesa Port of Entry (POE) at the US-Mexico Border. Project alternatives under study include a variable alignment of a six lane freeway alternative that would run parallel and roughly 1,300 feet to the south of the existing Otay Mesa Road, and a six lane toll way. The project will include grade separated local access interchanges with SR-125. The portion of the project from the Otay Mesa POE to Airway Road began construction in January 2003. As a part of this project the SR-905/Siempre Viva Road grade separated interchange was completed and opened to traffic in 2005. The remainder of the project has been divided into 4 phases. In discussions with Caltrans, it has been determined that the SR-905 facility would be constructed in the following four phases:

    - Phase 1. Phase 1 consists of two phases: Phase 1A (east) and Phase 1B (west). Phase 1A would consist of a six-lane facility between Britannia Boulevard and the Otay Mesa Port of Entry with a full interchange at SR-905/La Media Road and ramps on the eastern side of Britannia Boulevard. Roadway improvements will be made along Otay Mesa Road, Airway Road, Sanyo Avenue, and Harvest Road. Phase 1B consists of a six-lane facility between Caliente Avenue and Britannia Boulevard. Phase 1B includes an interchange at Caliente Avenue and ramps on the western side of Britannia Boulevard. Phase 1A is fully funded. Construction of Phase 1A began in April 2008 and is scheduled to be completed by late 2010. Phase 1B is also fully funded and secured with the majority of the funding coming from the American Recovery & Reinvestment Act funding. Construction of Phase 1B began in July 2009 and is scheduled to be completed by summer 2012.

        - Britannia Boulevard Improvements. As part of the construction of Phase 1A, Caltrans is working on improvements to Britannia Boulevard between Otay Mesa Road and the curb return on the north side of Airway Road. The Caltrans improvements to Britannia Boulevard will improve the existing cross-section of the segment of Britannia Boulevard between Otay Mesa Road and the curb return on the north side of Airway Road to the equivalent of a Prime Arterial. The improvements include signalization of the SR-905/Britannia Boulevard ramps.

        - La Media Road Improvements. As part of the construction of Phase 1A, Caltrans is working on improvements to La Media Road between Otay Mesa Road and approximately 300 feet (300') south of the proposed SR-905 eastbound ramp. The Caltrans improvements to La Media Road will improve the existing cross-section of the segment of La Media Road between Otay Mesa Road and approximately Saint Andrews Avenue (the approximate location of the SR-905 ramps) to the equivalent of a 4-lane Collector. The improvements include signalization of the SR-905/La Media Road ramps.

        - Airway Road Improvements. As part of the construction of Phase 1A, Caltrans is also working on improvements to Airway Road from approximately 700 feet west of Harvest Road to approximately 600 feet west of Sanyo Avenue. The Caltrans improvements to Airway Road will improve the existing cross-section of segment of Airway Road from approximately 700 feet west of Harvest Road to

approximately 600 feet west of Sanyo Avenue to the equivalent of a 4-lane Major Road.

- Phase 2. Phase 2 consists of improvements at the interchange at Interstate 805 (I-805)/SR-905 that includes construction of the westbound SR-905 to northbound I-805 connector from SR-905. An auxiliary lane will also be constructed along northbound I-805 between SR-905 and Palm Avenue. This Phase will also include widening of the Del Sol Boulevard under crossing. Phase 2 of the SR-905 including the connection to Interstate 805 has been funded through the Transportation Investment Generating Economic Recovery Grant (TIGER) award.

- Phase 3. Phase 3 consists of construction of the interchange at SR-125/SR-905. Phase 3 is not currently funded.

- Phase 4. Construction of the interchange at Heritage Road. Phase 4 is not currently funded.

- State Route 11. The State Route 11 (SR-11) project will consist of constructing approximately two miles of a new four-lane freeway from the proposed SR-905/SR-125 junction to the future Federal Port of Entry (POE) at east Otay Mesa in San Diego County. An environmental study for the SR-11 program has been completed and a second study for the project itself is underway, with completion expected in 2010. The current schedule calls for the SR-11 breaking ground in 2012 and opening in 2014, contingent on full funding. The location of the ramp interchanges, and the ramp interchange configurations will not be determined until after the completion of the SR-11 Phase 2 Project-level EIR. In the traffic analysis and study, the SR-11 facility and the POE at the third border crossing were assumed to be constructed and operational only under the 2030 conditions. Appendix B contains the Caltrans fact sheet for the SR-11 project.

- Airway Road Closure/Detour Mitigation Measures. Currently Airway Road between the SR-905 and Sanyo Avenue is closed for the construction of the SR-905 overpass, Caltrans schedule shows Airway Road between SR-905 and Sanyo Avenue opening to traffic on January 5, 2011. While the segment of Airway Road between SR-905 and Sanyo Avenue is closed for the construction of the SR-905/Airway Road structures, Caltrans proposes implemented a detour to re-route traffic via Sanyo Avenue and Otay Mesa Road (Old Otay Mesa Road). As a mitigation requirement of the detour (closure of Airway Road) Caltrans signalized the Otay Mesa Road/Sanyo Avenue intersection and improved the roadway segment of Otay Mesa Road between Harvest Road and Sanyo Avenue to the standards of a 4-lane Major Road and the segment of Sanyo Avenue between Otay Mesa Road and Airway Road to the standards equivalent to that of a 4-lane Collector Road.

Planned State Routes SR-11 along with the completion of all phases of SR-905 are critical to accommodating the buildout of future development of the entire Otay Mesa area. It should be noted that the SR-125 facility is a major roadway project in the Otay Mesa area that was just recently completed and opened to traffic in November 2007. All traffic counts and existing conditions included within this traffic study include the completion and operation of the SR-125.

2.7.1.5 Applicable Regulatory Requirements

San Diego County General Plan

According to page XII-4-20 of the Public Facility Element for San Diego County, a discretionary project which has a significant impact on roadways will be required, as a condition of approval, to make:

> "improvements or other measures necessary to mitigate traffic impacts to avoid reduction in the existing Level of Service below 'D' on off-site and on-site abutting County of San Diego's Circulation Element roads. New development that would significantly impact congestion on roads at LOS 'E' or 'F', either currently or as a result of the project, will be denied unless improvements are scheduled to increase the LOS to 'D' or better or appropriate mitigation is provided. Appropriate mitigation would include a fair share contribution in the form of road improvements or a fair share contribution to an established program or project. If impacts cannot be mitigated, the project will be denied unless a specific statement of overriding findings is made pursuant to Section 15091(b) and 15093 of the State CEQA Guidelines."

The Public Facility Element for the County of San Diego also requires that all on-site County Circulation Element roads operate at Level of Service C or better. If the Level of Service at an on-site County Circulation Element road is reduced below LOS C, the proposed project must provide appropriate mitigation measures.

San Diego County Transportation Impact Fee (TIF) Program/Ordinance

The County of San Diego Board of Supervisors adopted and subsequently amended the Transportation Impact Fee Ordinance (February 2008) for the unincorporated area of San Diego County. The ordinance enables the County to implement Transportation Impact Fee programs. The TIF program requires payment of fees that constitute a proposed project's fair-share contribution toward the construction costs of the planned transportation facilities that are affected by the proposed development. The TIF fees are collected prior to issuance of a development permit, including and most typically a building permit.

San Diego County Public Road Standards

The San Diego County Public Road Standards provide minimum design and construction requirements for public roads. In addition, the County Public Road Standards establish levels of service for Circulation Element roads. Although the County Public Road Standards do not establish levels of service standards for non-Circulation Element residential roads, target design capacities have been identified for these roads.

Congestion Management Program

State Proposition 111, passed by voters in 1990, established a requirement that urbanized areas prepare and regularly update a Congestion Management Program (CMP). The CMP is incorporated as part of the San Diego Association of Governments' (SANDAG) Regional Transportation Plan (RTP). The purpose of the CMP is to monitor the performance of the region's transportation system, develop programs to address near-term and long-term congestion, and better integrate transportation and land use planning. SANDAG, as the designated Congestion Management Agency for the San Diego region, must develop, adopt and update the CMP in response to specific legislative requirements. SANDAG, local jurisdictions, and transportation operators (i.e., Caltrans, Metropolitan Transit Development Board (MTDB), North San Diego County Transit District (NCTD), etc.) are responsible for implementing and monitoring the CMP.

The CMP requires a review of large projects that generate 2,400 or more average daily trips or 200 or more peak hour trips. This review must assess impacts to state highways and regionally significant arterials.

County of San Diego Zoning Ordinance, Parking Regulations

The County's Zoning Ordinance (Sections 6750-6799) sets forth standards for the provision of parking, including requirements for new uses and structures; existing uses and structures; conversion, alterations, or expansion of an existing use or structure; computation of vehicle and bicycle space requirements; location of parking to building sites; parking space dimensions; design of bicycle storage; design standards for off-street parking; loading spaces; variances from parking regulations; and parking of commercial vehicles in residential, agricultural and certain special purpose zones.

County of San Diego Off-Street Parking Design Manual

The County of San Diego Off-Street Parking Design Manual implements Section 6793(c) of the County Zoning Ordinance. This section of the Ordinance relates to the design, dimensions, construction, landscaping, and surfacing of parking and bicycle spaces, and driveways.

2.7.2 Analysis of Project Effects and Determination as to Significance

2.7.2.1 East Otay Mesa Specific Plan Final EIR

The Final EIR for the EOMSP concluded that implementation of the uses envisioned by the EOMSP, including the proposed Project, would result in significant but mitigable impacts to transportation and traffic. Impacts identified in the EOMSP Final EIR largely address the lack of roadway facilities that existed in the area at the time. No specific impacts to study area intersections or roadway segments were identified, although reference is made to the need to improve a number of roadways identified by the EOMSP Circulation Element.

Since the certification of the EOMSP Final EIR in 1994, the roadway network and traffic conditions in the surrounding area have changed substantially. Various roads in the Project vicinity currently are operating at a LOS "E" or "F" or will operate at such levels with implementation of the proposed Project and/or cumulative projects in the area. Additionally, the land uses used as inputs in the original traffic model are no longer valid, and a revised model which reflects the current traffic and infrastructure conditions is necessary to fully evaluate and disclose potential impacts to roadways, intersections, and freeway mainlines. As such, the County of San Diego has determined that a supplemental analysis of transportation and traffic impacts is required in order to identify, disclose, and mitigate for any new impacts resulting from Project implementation

2.7.2.2 Road Segments

The Project would have a significant adverse effect on transportation and traffic if any of the following would occur as a result of a Project-related component:

(1) The additional or redistributed average daily traffic (ADT) generated by the proposed Project would cause on-site Circulation Element Roads to operate below LOS C during peak traffic hours except within the Otay Ranch project as defined in the Otay Subregional Plan Text, Volume 2. PFE, Implementation Measure 1.1.2.

(2) The additional or redistributed ADT generated by the proposed Project would significantly increase congestion on a Circulation Element Road or State Highway currently operating at LOS E or LOS F, or will cause a Circulation Element Road or State Highway to operate at a LOS E or LOS F. A Project would significantly increase congestion on a Circulation Element Road or State Highway currently operating at LOS E or LOS F if the Project contributes ADT in excess of the values depicted below in Table 2.7-1.

(3) The additional or redistributed ADT generated by the proposed Project would cause a residential street to exceed its design capacity.

Table 2.7-1 ALLOWABLE INCREASES ON CONGESTED ROAD SEGMENTS

LEVEL OF SERVICE	TWO-LANE ROAD	FOUR-LANE ROAD	SIX-LANE ROAD	V/C	SPEED (MPH)
County of San Diego					
LOS E	200 ADT	400 ADT	600 ADT	-	-
LOS F	100 ADT	200 ADT	300 ADT	-	-
City of San Diego					
LOS E	-	-	-	0.02	1
LOS F	-	-	-	0.02	1

Notes:
1. By adding proposed Project trips to all other trips from a list of projects, this same table must be used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project that contributes any trips must mitigate a share of the cumulative impacts.
2. The County may also determine impacts have occurred on roads even when a project's traffic or cumulative impacts do not trigger an unacceptable level of service, when such traffic uses a significant amount of remaining road capacity.
3. A critical movement is an intersection movement (right turn, left turn, through-movement) that experiences excessive queues, which typically operate at LOS F. Also if a project adds significant volume to a minor roadway approach, a gap study should be provided that details the headways between vehicles on the major roadway.
4. For determining significance at signalized intersection with LOS F conditions, the analysis must evaluate both the delay and the number of trips on a critical movement, exceedance of either criteria result in a significant impact.

Regionally Significant Arterials

For Regionally Significant Arterials (RSA), such as Interim SR-905 Caltrans utilizes the *San Diego Traffic Engineers' Council (SANTEC)/Institute of Transportation Engineers (ITE) Guidelines For Traffic Impact studies (TIS) in the San Diego Region* to determine significance. The SANTECT/ITE guidelines specify that impacts to RSAs should be considered less than significant if adjacent intersections operate with a delay of less than 2 seconds (for RSAs operating at LOS E), or with a delay of less than 1 second or less than 5 peak hour trips on a critical movement (for RSAs operating at LOS F).

It should be noted that although Caltrans utilizes the SANTEC/ITE Guidelines to determine significance on arterial roadway segments based on peak hour operating conditions, the City of San Diego still determines the project significance for the roadway segment based on average daily operating conditions and the change in volume-to-capacity ratio. With further analysis, however, the City of San Diego considers that even if an arterial roadway segment is determined to be impacted based on the average daily operating conditions, the impact would be less than significant and mitigation would not be required if the following conditions are satisfied:

1. The roadway segment is already built out to its community plan classification,
2. The signalized endpoints of the roadway segment operate acceptably, and

3. The HCM arterial analysis for the roadway segment operates acceptably.

Since the segments of Interim SR-905 (Otay Mesa Road) from Heritage Road to La Media Road are currently already built out to their community plan classification of a 6-lane Prime Arterial, and since these roadway segments are currently under the jurisdiction of the City of San Diego as well as Caltrans the analysis in this section utilizes the City of San Diego's methodology described above to assess whether a project's impact would be considered significant.

It should be noted that the segment of Interim SR-905 (Otay Mesa Road) between La Media Road and Piper Ranch Road is currently only constructed to provide five (5) travel lanes (2 eastbound lanes and 3 westbound lanes) and is thus not yet constructed to its community plan classification of a 8-lane Major.

The segment of Interim SR-905 (Otay Mesa Road) from Piper Ranch Road to the SR-125 is located under the jurisdiction of the County, City, and Caltrans; however, the County of San Diego's roadway capacities and levels of significance have been utilized throughout this section to assess the impacts on this roadway segment. Since this roadway segment is a regionally significant arterial segment, the County considers that if the HCM arterial roadway segment operates acceptably and the signalized endpoints of the roadway segment also operate acceptably, then there is no significant impact and mitigation will not be required.

Caltrans

Caltrans *Guide for the Preparation of Traffic Impact Studies*, December 2002 requires that State highway facilities (i.e., freeway segments, signalized intersections, on-or off-ramps, etc.) maintain a target LOS at the transition between LOS C and LOS D. See Appendix A of the Project's Traffic Impact analysis (SEIR Appendix H1) for excerpts from Caltrans traffic impact guidelines.

Definition of Direct and Cumulative Impact in the City of San Diego and the County of San Diego

The County's *Guidelines for Determining Significance* adopted on February 19, 2010 was developed to evaluate the significance of traffic impacts on roadways and intersections which are currently operating at LOS E or F. It should be noted that the significance guidelines summarized in Table 2.7-1 are currently only utilized by the County of San Diego to determine if a project has a significant direct and/or future impact. A project is considered to have a significant cumulative impact if it adds any traffic to a roadway segment and/or intersection that operates at LOS E or F under cumulative conditions and the total cumulative traffic added to the roadway segment and/or intersection exceeds the value identified in Table 2.7-1. The City of San Diego defines cumulative traffic impacts as those projected to occur at some point after a proposed development becomes operational, such as when the affected community plan area reaches full planned build out.

Since the project is located in the County of San Diego, the traffic study is prepared in accordance with the guidelines provided by the County of San Diego. However, the City's significance thresholds are utilized in analyzing the roadway segments and intersections located in the City of San Diego.

The City of San Diego identifies direct impacts based on a comparison of two scenarios: (1) Existing traffic conditions plus cumulative (approved) projects versus (2) Existing traffic conditions plus

cumulative (approved) projects plus the proposed project. The City's methodology is designed to capture impacts from projects that will likely be open by the time the proposed project opens. Compared to the County's methodology, this type of analysis creates a third scenario, a "near-term cumulative," in addition to the County's two standard analyses: (1) Existing plus Project and (2) cumulative (2020). A near-term cumulative analysis would include fewer projects than the County's 2020 cumulative analysis because none of the Tentative Map projects can start applying for building permits until after they record a Final Map and obtain approval of a Site Plan. Thus, approval of a Site Plan, not a Tentative Map, is the threshold for a near-term cumulative project.

The County's East Otay Mesa cumulative analysis methodology uses expected development conditions as of the year 2020, thus it assumes SR-905 Phases 1A and 1B are completed; project phases are scheduled to open to traffic by 2010 and 2012 respectively. Normally future road improvements would not be assumed in a near-term analysis. However, in this case it is reasonable to assume completion of Phases 1A and 1B because they are fully funded and construction on both phases has already begun. In addition, no project that requires Phase 1A or 1B of the SR-905 for mitigation will get occupancy before those segments are open to traffic, as is further explained below.

The County's analysis found the potential for impacts on the interim 905 caused by "near-term" cumulative projects to be less than significant. Specifically, there are 9 near-term cumulative projects: California Crossings, CCA, COPART, FEDEX, Insurance Auto Auctions, Salvage Yards, Sunroad Interim Uses, Pilot Travel Plaza, and Vulcan Materials. Together, those 9 projects produce 36,522 ADT, which is less than one quarter of the trips included in the County's 2020 cumulative analysis. Of the 36,522 ADT, the majority of the trips (62%) are from one project, California Crossings. California Crossings is located very close to the City/County of San Diego boundary, so it is more likely to affect City streets than most of the other near-term cumulative projects. Nonetheless, California Crossings does not require SR-905 Phase 1B for mitigation, because the study area required by the City of San Diego does not extend west of Britannia Boulevard. California Crossings does rely on the completion of SR-905 Phase 1A, but this is not a development constraint because the project is not expected to get Site Plan approval (let alone building permits) until late 2011 and Phase 1A is expected to be completed a year earlier (late 2010). In addition, California Crossings will be conditioned to require Phase 1A to be open to traffic prior to issuance of building permits. Only one of the projects, Pilot Travel Plaza, is located west of California Crossings, and its traffic study indicated no direct traffic impacts west of the SR-125. The other seven projects combined produce only 8,621 trips, and all are located farther east than California Crossings (farther away from impacted City street segments). Therefore, it's reasonable to assume that those projects won't have significant impacts on Otay Mesa Road (Interim SR-905) before the freeway SR-905 Phases 1A and 1B are completed.

Justification for Thresholds of Significance

Thresholds 1 and 2 were selected for evaluation in this EIR to determine Project-related traffic impacts to road segments. Significance is defined by the County's Public Facilities Element (PFE), and County's Transportation and Traffic Guidelines For Determining Significance, which consider road segment size, and the City of San Diego's *CEQA Significance Thresholds*. Non-compliance with these standards could result in a project that is inconsistent with County and City standards.

Threshold 3 was selected to evaluate congestion on residential streets. Because LOS is not used for analysis of residential street conditions, significance is determined by comparing the road's projected capacity to the street's design capacity, as defined by the San Diego County Public and Private Road Standards. Traffic volumes that exceed the design capacity of residential streets may result in adverse traffic conditions which would require mitigation.

Analysis

Future development of the Project site would be conducted over four phases. It is conservatively estimated that the first phase would become operational in 2011, the second phase would become operational in 2012, the third phase would become operational in 2013, and the final phase would become operational in 2014. Trip generation rates for each phase of the Otay Business Park are presented in Table 2.7-8, *Project Phasing and Trip Generation*. For purposes of analysis, daily and peak hour traffic generations for the Otay Business Park project were based on SANDAG trip generation rates as contained in the Project traffic impact report. This section presents anticipated Project trip generation and distribution followed by an analysis of traffic conditions for each development phase.

As listed in Table 2.7-8, Phase 1 of the Otay Business Park (which includes a maximum of 625,000 square feet of business park land uses on 20 lots) is estimated to generate 10,000 ADT, with 1,200 trips occurring during the morning peak hour (960 inbound and 240 outbound) and 1,200 trips occurring during the afternoon peak hour (240 inbound and 960 outbound). The traffic distribution for existing conditions is depicted on Figure 2.7-3, *Traffic Distribution for Existing Conditions*, while Figure 2.7-4, *Phase 1 Project-Related Traffic Volumes*, depicts the estimated Project-related traffic volumes on study-area segments.

As listed in Table 2.7-8, Phases 1 and 2 of the Otay Business Park (which include a maximum of 1,111,500 square feet of business park land uses on 37 lots) are estimated to generate 17,184 ADT, with 2,134 trips occurring during the morning peak hour (1,707 inbound and 427 outbound) and 2,134 trips occurring during the afternoon peak hour (427 inbound and 1,707 outbound). The traffic distribution for existing conditions is depicted on Figure 2.7-3, *Traffic Distribution for Existing Conditions*, while Figure 2.7-5, *Phases 1 and 2 Project-Related Traffic Volumes*, depicts the estimated Project-related traffic volumes on study-area segments.

As listed in Table 2.7-8, Phases 1 through 3 of the Otay Business Park (which include a maximum of 1,643,700 square feet of business park land uses on 50 lots) are estimated to generate 26,299 ADT, with 3,156 trips occurring during the morning peak hour (2,525 inbound and 634 outbound) and 3,156 trips occurring during the afternoon peak hour (634 inbound and 2,525 outbound). The traffic distribution for existing conditions is depicted on Figure 2.7-3, *Traffic Distribution for Existing Conditions*, while Figure 2.7-6, *Phases 1 through 3 Project-Related Traffic Volumes*, depicts the estimated Project-related traffic volumes on study-area segment.

As listed in Table 2.7-8, ultimate buildout of the Project site (*i.e.*, Phases 1-4) would include a maximum of 2,092,900 square feet of business park land uses on 59 lots, which is estimated to generate 33,486 ADT, with 4,018 trips occurring during the morning peak hour (3,215 inbound and 803 outbound) and 4,018 trips occurring during the afternoon peak hour (803 inbound and 3,215 outbound). Figure 2.7-7, *Traffic Distribution for Cumulative (2020) With SR-905 Conditions*, depicts the Project-related traffic distribution following the completion of SR-905, while Figure 2.7-8,

Project-Related Traffic Volumes for Cumulative With SR-905 Conditions (Year 2015), depicts Project-related traffic volumes. Figure 2.7-9, *Traffic Distribution for Buildout Year 2030 Conditions*, depicts the Project's trip distribution upon full buildout of the study area, while Figure 2.7-10, *Project-Related Traffic Volumes for Buildout Year 2030 Conditions*¸ depicts Project-related traffic volumes.

Design features proposed by the Project that would reduce potential impacts to traffic include improvements to Alta Road along the Project frontage and off-site, on- and off-site improvements to Airway Road, and on- and off-site improvements to Siempre Viva Road. Major improvements for site access are described below (refer to SEIR Section 1.2.2.1 for a complete description of on-site roadway improvements by development phase):

- **Alta Road**
  - From Airway Road to Siempre Viva Road north: The Project would grade Alta Road along the Project frontage to its ultimate full-width section as a Major roadway (98-foot right-of-way) as part of Phase 1 of the proposed Project, and would improve this segment of Alta Road to its ultimate half-width section (excluding median), including 32 feet of pavement area and a ten-foot parkway with a four (4)-foot curb-adjacent sidewalk and street lighting.
  - From Siempre Viva Road to Street "A": This segment of Alta Road would be improved to the standard of a 2-Lane Industrial/Commercial Collector as part of the first phase of development. Proposed improvements would include 84 feet of right-of-way, 64 feet of pavement area, and a ten-foot parkway along both sides that includes a four (4)-foot curb-adjacent sidewalk and street lighting. It should be noted that this segment would exceed the classification for a 2-Lane Industrial/Commercial Collector due to the need to accommodate an additional twelve feet for turn movements.
  - From Street "A" to Southern Project boundary: This portion of Alta Road would be improved along the Project frontage as part of Phase 3 of the proposed Project to the standard of a 2-Lane Industrial/Commercial Collector. Proposed improvements would include 74 feet of right-of-way, 54 feet of pavement area, a ten-foot parkway along both sides that includes a four (4)-foot curb-adjacent sidewalk, and street lighting. It should be noted that this section of the roadway would transition from the proposed 84-foot right-of-way occurring between Siempre Viva Road and Street "A" to the 2-Lane Industrial/Commercial Collector standard (74-foot right-of-way) at the southern extent of the segment.
- **Airway Road**
  - From Airway Place to Alta Road: Off-site portions of Airway Road would be improved to its ultimate half-width section as a Major roadway as part of the first phase of the proposed Project, including 32 feet of pavement area and a ten-foot parkway with a four (4)-foot curb-adjacent sidewalk and street lighting. For purposes of analysis within this section, it is assumed that this roadway segment would have a capacity equal to that of a two-lane Light Collector. As part of Phase 2 of the proposed Project, this roadway segment would be fully improved to the standard of a 4-Lane Major Roadway, including 98 feet of right-of-way, 64 feet of pavement area,

a 14-foot raised median, and a ten-foot parkway along both sides of the roadway with a four (4)-foot curb-adjacent sidewalk and street lighting. It should be noted that in all phases except Phase 1 of the proposed Project, the proposed improvements to this roadway segment exceed the minimum requirements identified in the Project's traffic study to achieve an acceptable level of service, while Phase 1 would achieve a roadway capacity equal to that recommended by the traffic study.

- On-site, Alta Road to Street "B": This on-site segment would be improved to its ultimate half-width section as a Major roadway as part of the first phase of the development, including 32 feet of pavement area and a ten-foot parkway with a four (4)-foot curb-adjacent sidewalk and street lighting. For purposes of analysis within this section, it is assumed that this roadway would have a capacity equal to that of a 2-Lane Light Collector. As part of Phase 2 of the proposed Project, this roadway segment would be fully improved to the standard of a 4-Lane Major Roadway, including 98 feet of right-of-way, 64 feet of pavement area, a 14-foot raised median, and a ten-foot parkway that includes a four (4)-foot curb-adjacent sidewalk and street lighting along both sides of the roadway. It should be noted that in all phases except Phase 1 of the proposed Project, the proposed improvements to this roadway segment exceed the minimum requirements identified in the Project's traffic study to achieve an acceptable level of service, while Phase 1 would achieve a roadway capacity equal to that recommended by the traffic study.
- On-site, Street "B" to Siempre Viva: On-site portions of Airway Road between Street "B" and Siempre Viva Road would be improved to its ultimate half-width section as a Major roadway as part of the first phase of the development, including 32 feet of pavement area and a ten-foot parkway with a four (4)-foot curb-adjacent sidewalk and street lighting. For purposes of analysis within this section, it is assumed that this roadway would have a capacity equal to that of a 2-Lane Light Collector. As part of Phase 3 of the proposed Project, this roadway segment would be fully improved to the standard of a 4-Lane Major Roadway, including 98 feet of right-of-way, 64 feet of pavement area, a 14-foot raised median, and a ten-foot parkway with a four (4)-foot curb-adjacent sidewalk and street lighting along both sides of the roadway. It should be noted that in all phases except Phases 1 and 2 of the proposed Project, the proposed improvements to this roadway segment exceed the minimum standard identified in the Project's traffic study to achieve an acceptable level of service, while Phases 1 and 2 would achieve a roadway capacity equal to that recommended by the traffic study.
- On-site, Siempre Viva to Street "A": Airway Road from Siempre Viva Road to Street "A" is a proposed on-site roadway and would be improved to a half-width section as a 4-Lane Industrial/Commercial Collector roadway as part of Phase 2 of the proposed Project, including 34 feet of pavement area and a ten-foot parkway that includes a four (4)-foot curb-adjacent sidewalk and street lighting. As part of Phase 3 of the proposed Project, this roadway segment would be fully improved to a 4-Lane Industrial/Commercial Collector, including 68 feet of pavement area and a ten-foot parkway along both sides that includes a four (4)-foot curb-adjacent sidewalk and street lighting.

- **Siempre Viva Road**

- From Airway Place to Alta Road: Off-site portions of Siempre Viva Road would be improved to its ultimate half-width section as a Major roadway between Alta Road and Airway Place as part of the first phase of the proposed Project, including 32 feet of pavement area and a ten-foot parkway with a four (4)-foot curb-adjacent sidewalk and street lighting. For purposes of analysis within this section, it is assumed that this half-width segment would have a capacity equal to that of a two-lane Light Collector. In addition, the Project applicant would be required to widen the south side of the segment near the CHP facility to provide for appropriate transitions from the CHP facility and to accommodate one full travel lane in each direction. As part of Phase 2 of the proposed Project, this roadway segment would be fully improved between Siempre Viva Road and Alta Road to the standard of a 4-Lane Major Roadway, including 98 feet of right-of-way, 64 feet of pavement area, a 14-foot raised median, and a ten-foot parkway that includes a four (4)-foot curb-adjacent sidewalk and street lighting along both sides of the roadway. It should be noted that in all phases except Phase 1 of the proposed Project, the proposed improvements to this roadway segment exceed the minimum recommendations identified in the Project's traffic study to achieve an acceptable level of service, while Phase 1 would achieve a roadway capacity equal to that recommended by the traffic study.
- Alta Road to Street "B" (on-site): This on-site segment would be improved to its ultimate half-width section as a Major roadway as part of the first phase of the development, including 32 feet of pavement area and a ten-foot parkway with a four (4)-foot curb-adjacent sidewalk and street lighting. For purposes of analysis within this section, it is assumed that this roadway would have a capacity equal to that of a 2-Lane Light Collector. As part of Phase 2 of the proposed Project, this roadway segment would be fully improved to the standard of a 4-Lane Major Roadway, including 98 feet of right-of-way, 64 feet of pavement area, a 14-foot raised median, and a ten-foot parkway with a four (4)-foot curb-adjacent sidewalk and street lighting along both sides of the roadway. It should be noted that in all phases except Phase 1 of the proposed Project, the proposed improvements to this roadway segment exceed the minimum requirements identified in the Project's traffic study to achieve an acceptable level of service, while Phase 1 would achieve a roadway capacity equal to that recommended by the traffic study.
- Street "B" to Street "C" (on-site): This on-site segment would be improved to its ultimate half-width section as a Major roadway as part of the first phase of the development, including 32 feet of pavement area and a ten-foot parkway with a four (4)-foot curb-adjacent sidewalk and street lighting. For purposes of analysis within this section, it is assumed that this segment would have a capacity equal to that of a 2-Lane Light Collector. As part of Phase 4 of the proposed Project, this roadway segment would be fully improved to the standard of a 4-Lane Major Roadway, including 98 feet of right-of-way, 64 feet of pavement area, a 14-foot raised median, and a ten-foot parkway with a four (4)-foot curb-adjacent sidewalk and street lighting along both sides of the roadway.
- Street "C" to Airway Road (on-site): This on-site segment would be improved to its ultimate half-width section as a Major roadway as part of the first phase of the development, including 32 feet of pavement area and a ten-foot parkway with a four (4)-foot curb-adjacent sidewalk and street lighting. For purposes of analysis within this section, it is assumed that this segment would have a capacity equal to that of a

2-Lane Light Collector. As part of Phase 4 of the proposed Project, this roadway segment would be fully improved to the standard of a 4-Lane Major Roadway, including 98 feet of right-of-way, 64 feet of pavement area, a 14-foot raised median, and a ten-foot parkway with a four (4)-foot curb-adjacent sidewalk and street lighting along both sides of the roadway.

- Airway Road to Project Boundary (on-site): This on-site segment would be fully improved to the standard of a 4-Lane Major Roadway as part of Phase 4 of the proposed Project, including 98 feet of right-of-way, 64 feet of pavement area, a 14-foot raised median, and a ten-foot parkway with a four (4)-foot curb-adjacent sidewalk and street lighting along both sides of the roadway.

Existing Plus Project Phase 1 Street Segment Level of Service

Existing Plus Project Phase 1 street segment LOS was determined by combining the existing ADT volumes with Phase 1 ADT volumes. The result of this analysis is presented on Figure 2.7-11, *Existing Plus Project Phase 1 Street Segment Traffic Volumes*, and summarized in Table 2.7-9, *Existing Plus Project Phase 1 Roadway Segment Level of Service Summary*.

As noted previously, several arterial segments within the vicinity of the proposed Project site are unique in the sense that a majority of the traffic is associated with traffic from the Otay Mesa Port-of-Entry, which is open 24 hours a day with typically long lines crossing the border. Traffic along these segments is therefore fairly constant between the hours of 7:00am to 6:00pm, compared to most 5-lane and 6-lane roadways which have high peak hour flows in the morning and afternoon. This results in the spread of vehicles through the day, thereby increasing total daily traffic volumes. Therefore, in addition to evaluating the roadway based on daily capacity (Table 2.7-9), a separate analysis was conducted based on the Highway Capacity Manual's (HCM) Arterial Segment Methodology, using Synchro software. Since the arterial segment analysis determines level of service based on the average travel speeds that occur on the roadway, it provides a more accurate representation of the travel patterns and levels of service for Interim SR-905 (Otay Mesa Road). The results of this analysis are presented in Table 2.7-10, *Existing Plus Project Phase 1 Conditions Roadway Segment Daily LOS Summary*, and are described below.

The following provides a summary of the roadway segments that are shown in Table 2.7-9 as operating at a deficient LOS (LOS E or F) with implementation of Phase 1 of the proposed Project.

- Interim SR-905 (Otay Mesa Road) from Heritage Road to Cactus Road. In the existing condition, the six-lane segment of Interim SR-905 (Otay Mesa Road) between Heritage Road and Cactus Road, which is located in the City of San Diego, is considered congested and is operating at LOS F. With the addition of 6,300 ADT from Phase 1 of the project, the v/c ratio would be increased by 0.11 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would continue to operate at LOS F. The increase in v/c exceeds the 0.01 allowed per the City of San Diego thresholds of significance for a roadway segment operating at LOS F. The arterial roadway segment analysis (refer to Table 2.7-10) for the segment of Interim SR-905 (Otay Mesa Road) between Heritage Road and Cactus Road found it to operate at an acceptable LOS C or better during peak hours with the addition of Project traffic. Further, as discussed later under the intersection analysis, both the Interim SR-905 (Otay Mesa Road)/Heritage Road and Interim SR-905 (Otay Mesa Road)/Cactus Road intersections operate at an acceptable LOS D or better during both peak hours.

Therefore, per the City of San Diego's policy, since the segment of Interim SR-905 (Otay Mesa Road) between Heritage Road and Cactus Road is currently already build out to its ultimate classification of a 6-Lane Prime Arterial, the Project's Phase 1 contribution of ADT to this road segment is not considered to have a significant direct impact, and mitigation would not be required.

- Interim SR-905 (Otay Mesa Road) from Cactus Road to Britannia Boulevard. In the existing condition, the six-lane segment of Interim SR-905 (Otay Mesa Road) between Cactus Road and Britannia Boulevard, which is located in the City of San Diego, is considered congested and is operating at LOS F. With the addition of 6,400 ADT from Phase 1 of the project, the v/c ratio would be increased by 0.11 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would continue to operate at LOS F. The increase in v/c exceeds the 0.01 allowed per the City of San Diego thresholds of significance for a roadway segment operating at LOS F. However, the arterial roadway segment analysis for the segment of Interim SR-905 (Otay Mesa Road) between Cactus Road and Britannia Boulevard (refer to Table 2.7-10) found it to operate at an acceptable LOS C or better during both peak hours. Further, as discussed later under the intersection analysis both the Interim SR-905 (Otay Mesa Road)/Cactus Road and Interim SR-905 (Otay Mesa Road)/Britannia Boulevard intersections operate at LOS C or better during both peak hours. Therefore, per the City of San Diego's policy, since the segment of Interim SR-905 (Otay Mesa Road) between Cactus Road and Britannia Boulevard is currently already built out to its ultimate classification of a 6-lane Prime Arterial, the Project's Phase 1 contribution of ADT to Interim SR-905 (Otay Mesa Road) from Cactus Road to Britannia Boulevard would be considered less than significant and mitigation would not be required.

- Interim SR-905 (Otay Mesa Road) from Britannia Boulevard to La Media Road. The segment of Interim SR-905 (Otay Mesa Road) between Britannia Boulevard and La Media Road, which is located within the City of San Diego, operates at an unacceptable LOS E under existing conditions. With the addition of 6,600 ADT from Phase 1 of the project, the v/c ratio would be increased by 0.11 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would degrade to LOS F. The increase in v/c exceeds the 0.01 allowed per the City of San Diego thresholds for significance for a roadway segment operating at LOS F. However, the arterial roadway segment analysis (refer to Table 2.7-10), the segment of Interim SR-905 (Otay Mesa Road) between Britannia Boulevard and La Media Road found it to operate at an acceptable LOS B or better during both peak hours. Further, as discussed later under the intersection analysis both the Interim SR-905 (Otay Mesa Road)/Britannia Boulevard and Interim SR-905 (Otay Mesa Road)/La Media Road intersections operate at LOS C or better during both peak hours. Therefore, per the City of San Diego's policy, since the segment of Interim SR-905 (Otay Mesa Road) between Britannia Boulevard and La Media Road is currently already built out to its ultimate classification of a 6-lane Prime Arterial, the Project's contribution of ADT to Interim SR-905 (Otay Mesa Road) from Britannia Boulevard to La Media Road would be considered less than significant and mitigation would not be required.

- Interim SR-905 (Otay Mesa Road) from La Media Road to Piper Ranch Road. The segment of Interim SR-905 (Otay Mesa Road) between La Media Road and Piper Ranch Road, which is located within the City of San Diego, operates at an unacceptable LOS E under existing conditions. With the addition of 6,900 ADT from Phase 1 of the project, the v/c ratio would be increased by 0.15 and the level of service on this segment of Interim SR-905 (Otay Mesa

Road) would degrade to LOS F. The increase in v/c exceeds the 0.01 allowed per the City of San Diego thresholds for significance for a roadway segment operating at LOS F. Even though the arterial roadway segment analysis (refer to Table 2.7-10) for the segment of Interim SR-905 (Otay Mesa Road) between La Media Road and Piper Ranch Road found this segment to operate at an acceptable LOS C or better during both peak hours and both the Interim SR-905 (Otay Mesa Road)/La Media Road and Interim SR-905 (Otay Mesa Road)/Piper Ranch Road intersections operate at an acceptable LOS during both peak hours, impacts to this roadway segment are considered significant pursuant to the City of San Diego's policy because the segment of Interim SR-905 (Otay Mesa Road) between La Media Road and Piper Ranch Road is not currently built out to its ultimate circulation element classification (**Significant Direct Impact TR-1**).

- Interim SR-905 (Otay Mesa Road) from Piper Ranch Road to SR-125. Interim SR-905 (Otay Mesa Road) from Piper Ranch Road to SR-125 is a six-lane roadway segment that operates at LOS C in the existing condition. This segment of Interim SR-905 (Otay Mesa Road) is located within the County of San Diego. With the addition of 7,000 ADT from Phase 1 of the project, the v/c ratio would be increased 0.12 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would degrade to LOS E, which normally would be evaluated as significant per the County General Plan PFE. The arterial segment analysis for Interim SR-905 from Cactus Road to Britannia Boulevard (presented in Table 2.7-10) found this segment would operate at an acceptable LOS B or better during both peak hours with traffic from Phase 1 of the Project during both peak hours. Further, as discussed later in this section under the analysis of intersection impacts, both the Interim SR-905 (Otay Mesa Road)/Piper Ranch Road and Interim SR-905 (Otay Mesa Road)/SR-125 Southbound Ramp intersections operate at an acceptable LOS during both peak hours. Therefore, based on the peak hour operating conditions, since the segment of Interim SR-905 (Otay Mesa Road) between Piper Ranch Road and SR-125 is located under the jurisdiction of the County of San Diego, Phase 1 of the project is not considered to have a significant direct impact on this roadway segment and mitigation would not be required.

- Otay Mesa Road from Sanyo Avenue to Enrico Fermi Drive. This segment of Otay Mesa Road is located within the County of San Diego and operates at LOS D in the existing condition. As depicted in Table 2.7-9, with the addition of 4,000 ADT from Phase 1 of the proposed Project, this segment of Otay Mesa Road would operate at LOS E. Per the County General Plan PFE, because Phase 1 of the project would lower the existing level of service from LOS D to LOS E, based on average daily conditions, Phase 1 of the project would result in a significant direct impact on the segments of Otay Mesa Road between Sanyo Avenue and Enrico Fermi Drive (**Significant Direct Impact TR-2**).

- SR-905 from Otay Mesa Road to Siempre Vive Road. This four-lane segment of SR-905 is located within the City of San Diego and operates at LOS E in the existing condition. With the addition of 4,000 ADT from Phase 1 of the Project, the v/c would be increased by 0.10 and the LOS on this segment of SR-905 would degrade to LOS F. The increase in v/c exceeds the 0.01 allowed per the City of San Diego thresholds for significance for a roadway segment operating at LOS F; therefore, based on average daily conditions, Phase 1 of the proposed Project would result in a significant direct impact on the segment of SR-905 between Otay Mesa Road and Siempre Viva Road (**Significant Direct Impact TR-3**).

As depicted in Table 2.7-9, all other roadway segments would continue to operate at LOS D or better under existing plus Phase 1 of the proposed Project conditions. In addition, there are no residential streets located within the Project study area, and the Project would not contribute to a residential street exceeding its design capacity.

Existing Plus Project Phases 1 and 2 Street Segment Level of Service

Existing Plus Project Phases 1 and 2 street segment LOS was determined by combining the existing ADT volumes with Phases 1 and 2 ADT volumes. The result of this analysis is presented on Figure 2.7-12, *Existing Plus Project Phases 1 and 2 Street Segment Traffic Volumes*, and summarized in Table 2.7-11, *Existing Plus Project Phases 1 and 2 Roadway Segment Level of Service Summary*.

As noted previously, a separate analysis was conducted for Interim SR-905 (Otay Mesa Road), based on the Highway Capacity Manual's (HCM) Arterial Segment Methodology and using Synchro software, in order to determine the level of service based on the average travel speeds that occur on these roadway segments. The results of this analysis are presented in Table 2.7-12, *Existing Plus Project Phases 1 and 2 Arterial LOS Summary*, and are described below.

The following provides a summary of the roadway segments that are shown in Table 2.7-11 as operating at a deficient LOS (LOS E or F) with implementation of Phases 1 and 2 of the proposed Project:

- Interim SR-905 (Otay Mesa Road) from Heritage Road to Cactus Road. In the existing condition, the six-lane segment of Interim SR-905 (Otay Mesa Road) between Heritage Road and Cactus Road, which is located in the City of San Diego, is considered congested and is operating at LOS F. With the addition of 11,204 ADT from Phases 1 and 2 of the project, the v/c ratio would be increased by 0.19 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would continue to operate at LOS F. The increase in v/c would normally be considered a significant direct impact on these roadway segments. The arterial roadway segment analysis (refer to Table 2.7-12) for the segment of Interim SR-905 (Otay Mesa Road) between Heritage Road and Cactus Road found it to operate at an acceptable LOS D or better during both peak hours with the addition of Project traffic. Additionally, as discussed later under the intersection analysis, the Interim SR-905 (Otay Mesa Road)/Heritage Road and Otay Mesa Road/Cactus Road intersections were found to operate at an acceptable LOS during both peak hours. Therefore, per the City of San Diego's policy, since the segment of Interim SR-905 (Otay Mesa Road) between Heritage Road and Cactus Road is currently already built out to its ultimate classification of a 6-lane Prime Arterial, the proposed project's Phases 1-2 is not considered to have a significant direct impact and mitigation would not be required.
- Interim SR-905 (Otay Mesa Road) from Cactus Road and Britannia Boulevard. In the existing condition, the six-lane segment of Interim SR-905 (Otay Mesa Road) between Cactus Road and Britannia Boulevard, which is located in the City of San Diego, is considered congested and is operating at LOS F. With the addition of 11,382 ADT from Phases 1 and 2 of the project, the v/c ratio would be increased by 0.19 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would continue to operate at LOS F. The increase in v/c would normally be considered a significant direct impact on these roadway segments. However, based on the arterial roadway segment analysis (refer to Table 2.7-12), the segment of Interim SR-905 (Otay Mesa Road) between Cactus Road and

Britannia Boulevard is projected to operate at an acceptable LOS B or better with the addition of Project traffic during peak hours. Further, as discussed later under the intersection analysis, both the Interim SR-905 (Otay Mesa Road)/Cactus Road and Interim SR-905 (Otay Mesa Road)/Britannia Boulevard intersections operate at an acceptable LOS during both peak hours. Therefore, per the City of San Diego's policy, since the segment of Interim SR-905 (Otay Mesa Road) between Cactus Road and Britannia Boulevard is currently already built out to its ultimate classification of a 6-lane Prime Arterial, the proposed project's Phases 1-2 is not considered to have a significant direct impact and mitigation would not be required.

- Interim SR-905 (Otay Mesa Road) from Britannia Boulevard to La Media Road. The segment of Interim SR-905 (Otay Mesa Road) between Britannia Boulevard and La Media Road, which is located within the City of San Diego, operates at an unacceptable LOS E under existing conditions. With the addition of 11,737 ADT from Phases 1 and 2 of the project, the v/c ratio would be increased by 0.20 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would degrade to LOS F. The increase in v/c would normally be considered a significant direct impact on this roadway segment. However, based on the arterial roadway segment analysis (refer to Table 2.7-12), the segment of Interim SR-905 (Otay Mesa Road) between Britannia Boulevard and La Media Road is projected to operate at an acceptable LOS A with the addition of Project traffic during peak hours. Further, as discussed later under the intersection analysis, both the Interim SR-905 (Otay Mesa Road)/Britannia Boulevard and Interim SR-905 (Otay Mesa Road)/La Media Road intersections operate at acceptable LOS during both peak hours. Therefore, per the City of San Diego's policy, since the segment of Interim SR-905 (Otay Mesa Road) between Britannia Boulevard and La Media Road is currently already built out to its ultimate classification of a 6-lane Prime Arterial, the proposed project's Phases 1-2 is not considered to have a significant direct impact and mitigation would not be required.

- Interim SR-905 (Otay Mesa Road) from La Media Road to Piper Ranch Road. The segment of Interim SR-905 (Otay Mesa Road) between La Media Road and Piper Ranch Road, which is located within the City of San Diego, operates at an unacceptable LOS E under existing conditions. With the addition of 12,271 ADT from Phases 1 and 2 of the project, the v/c ratio would be increased by 0.27 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would degrade to LOS F. The increase in v/c would normally be considered a significant direct impact on this roadway segment. Even though the arterial roadway segment analysis (refer to Table 2.7-12) found the segment of Interim SR-905 (Otay Mesa Road) between La Media Road and Piper Ranch Road to operate at an acceptable LOS B or better during both peak hours with the addition of Project traffic and both the Otay Mesa Road/La Media Road and Otay Mesa Road/Piper Ranch Road intersections operate at acceptable levels of service during the AM and PM peak hours, since the segment of Interim SR-905 (Otay Mesa Road) between La Media Road and Piper Ranch is not currently built out to its ultimate circulation element classification impacts to this roadway segment that would occur with implementation of Phases 1-2 of the Project are evaluated as significant (**Significant Direct Impact TR-1**).

- Interim SR-905 (Otay Mesa Road) from Piper Ranch Road to SR-125. Interim SR-905 (Otay Mesa Road) from Piper Ranch Road to SR-125 is a six-lane roadway segment that operates at LOS C in the existing condition. This segment of Interim SR-905 (Otay Mesa Road) is located within the County of San Diego. With the addition of 12,449 ADT from Phases 1

and 2 of the Project, the v/c ratio would be increased 0.21 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would degrade to LOS E. Per the County General Plan PFE, reducing the existing level of service from LOS C to LOS E normally would be considered a significant direct impact. However, the arterial roadway segment analysis (presented in Table 2.7-12) found that this segment would operate at an acceptable LOS B during both peak hours with traffic from Phases 1 and 2 of the Project. Further, as discussed later in this section under the intersection analysis, both the Interim SR-905 (Otay Mesa Road)/Piper Ranch Road and Interim SR-905 (Otay Mesa Road)/SR-125 Southbound Ramp intersections operate at LOS B or better during both peak hours. Therefore, based on the peak hour operating conditions, and since the segment of Interim SR-905 (Otay Mesa Road) between Piper Ranch Road and SR-125 is located under the jurisdiction of the County of San Diego, Phases 1-2 of the project is not considered to have a significant direct impact on this roadway segment and mitigation would not be required.

- Otay Mesa Road from Sanyo Avenue to Enrico Fermi Drive. These segments of Otay Mesa Road are located within the County of San Diego and operate at LOS D in the existing condition. With the addition of 7,114 ADT from Phases 1 and 2 of the proposed Project, these segments of Otay Mesa Road would operate at LOS F. Per the County General Plan PFE, since Phases 1 and 2 of the Project would lower the existing level of service from LOS D to LOS F, based on average daily conditions, Phases 1 and 2 of the Project would result in a significant direct impact on the segments of Otay Mesa Road between Sanyo Avenue and Enrico Fermi Drive (**Significant Direct Impact TR-2**).
- SR-905 from Otay Mesa Road to Siempre Vive Road. This four-lane segment of SR-905 is located within the City of San Diego and operates at LOS E in the existing condition. With the addition of 7,114 ADT from Phases 1 and 2 of the project, the v/c would be increased by 0.17 and the LOS on this segment of SR-905 would degrade to LOS F. The increase in v/c exceeds the 0.01 allowed per the City of San Diego thresholds for significance for a roadway segment operating at LOS F; therefore, based on average daily conditions Phases 1 and 2 of the proposed Project would result in a significant direct impact on the segment of SR-905 between Otay Mesa Road and Siempre Viva Road (**Significant Direct Impact TR-3**).

As depicted in Table 2.7-11, all other roadway segments would continue to operate at LOS D or better under existing plus Phases 1 and 2 of the proposed Project conditions. In addition, there are no residential streets located within the Project study area, and the Project would not contribute to a residential street exceeding its design capacity.

Existing Plus Project Phases 1 through 3 Street Segment Level of Service

Existing Plus Project Phases 1 through 3 street segment LOS was determined by combining the existing ADT volumes with Phases 1 through 3 ADT volumes. The result of this analysis is presented on Figure 2.7-13, *Existing Plus Project Phases 1 through 3 Street Segment Traffic Volumes*, and summarized in Table 2.7-13, *Existing Plus Project Phases 1 through 3 Roadway Segment Level of Service Summary*.

As noted previously, a separate analysis was conducted for Interim SR-905 (Otay Mesa Road), based on the Highway Capacity Manual's (HCM) Arterial Segment Methodology and using Synchro software, in order to determine the level of service based on the average travel speeds that occur on

these roadway segments. The results of this analysis are presented in Table 2.7-14, *Existing Plus Project Phases 1 through 3 Project Arterial LOS Summary,* and are described below.

The following provides a summary of the roadway segments that are shown in Table 2.7-13 as operating at a deficient LOS (LOS E or F) with implementation of Phases 1 through 3 of the proposed Project:

- Interim SR-905 (Otay Mesa Road) from Heritage Road to Cactus Road. In the existing condition, the six-lane segment of Interim SR-905 (Otay Mesa Road) between Heritage Road and Cactus Road, which is located in the City of San Diego, is considered congested and is operating at LOS F. With the addition of 16,568 ADT from Phases 1 through 3 of the Project, the v/c ratio would be increased by 0.28 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would continue to operate at LOS F. The increase in v/c would normally be considered a significant direct impact on this roadway segment. Based on the arterial roadway segment analysis (refer to Table 2.7-14), the segment of Interim SR-905 (Otay Mesa Road) between Heritage Road and Cactus Road also would operate at an unacceptable LOS F during at least one direction of travel during at least one peak hour. Therefore, pursuant to the City of San Diego's policy, implementation of Phases 1 through 3 of the Project would result in a significant direct impact on the segment of Interim SR-905 (Otay Mesa Road) between Heritage Road and Cactus Road (**Significant Direct Impact TR-4)**.
- Interim SR-905 (Otay Mesa Road) from Cactus Road to Britannia Boulevard. In the existing condition, the six-lane segment of Interim SR-905 (Otay Mesa Road) between Cactus Road to Britannia Boulevard, which is located in the City of San Diego, is considered congested and is operating at LOS F. With the addition of 16,831 ADT from Phases 1 through 3 of the Project, the v/c ratio would be increased by 0.29 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would continue to operate at LOS F. The increase in v/c would normally be considered a significant direct impact on this roadway segment. Based on the arterial roadway segment analysis (refer to Table 2.7-14), the segment of Interim SR-905 (Otay Mesa Road) between Cactus Road to Britannia Boulevard also would operate at an acceptable LOS; however, the Otay Mesa Road/Cactus Road intersection operates at LOS F during the AM peak hour. Therefore, even based on peak hour levels, implementation of Phases 1 through 3 of the Project would result in a significant direct impact on the segment of Interim SR-905 (Otay Mesa Road) between Cactus Road to Britannia Boulevard (**Significant Direct Impact TR-5)**.
- Interim SR-905 (Otay Mesa Road) from Britannia Boulevard to La Media Road. The segment of Interim SR-905 (Otay Mesa Road) between Britannia Boulevard and La Media Road, which is located within the City of San Diego, operates at an unacceptable LOS E under existing conditions. With the addition of 17,357 ADT from Phases 1 through 3 of the Project, the v/c ratio would be increased by 0.29 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would degrade to LOS F. The increase in v/c would normally be considered a significant direct impact on this roadway segment. However, based on the arterial roadway segment analysis (refer to Table 2.7-14), the segment of Interim SR-905 (Otay Mesa Road) between Britannia Boulevard and La Media Road is projected to operate at an acceptable LOS A during both peak hours with the addition of Project traffic. In addition, the Interim SR-905 (Otay Mesa Road)/Britannia Boulevard and Otay Mesa Road/La Media Road intersections operate at an acceptable LOS during both peak hours.

Therefore, per the City of San Diego's policy, since the segment of Interim SR-905 (Otay Mesa Road) between Britannia Boulevard and La Media Road is currently already built out to its ultimate classification of a 6-lane Prime Arterial, the proposed Project's Phases 1-3 is not considered to have a significant direct impact and mitigation would not be required.

- Interim SR-905 (Otay Mesa Road) from La Media Road to Piper Ranch Road. The segment of Interim SR-905 (Otay Mesa Road) between La Media Road and Piper Ranch Road, which is located within the City of San Diego, operates at an unacceptable LOS E under existing conditions. With the addition of 18,146 ADT from Phases 1 through 3 of the Project, the v/c ratio would be increased by 0.40 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would degrade to LOS F. The increase in v/c would normally be considered a significant direct impact on this roadway segment. Even though the arterial roadway segment analysis (refer to Table 2.7-14) found that the segment of Interim SR-905 (Otay Mesa Road) between La Media Road and Piper Ranch Road is projected to operate at an acceptable LOS during both peak hours and both the Otay Mesa Road/La Media Road and Otay Mesa Road/Piper Ranch Road intersections operate at acceptable levels of service during the AM and PM peak hours, impacts to this roadway segment from Phases 1 through 3 of the Project are considered significant pursuant to the City of San Diego's policy because the segment of Interim SR-905 (Otay Mesa Road) between La Media Road and Piper Ranch Road is not currently built out to its ultimate circulation element classification (**Significant Direct Impact TR-1**).

- Interim SR-905 (Otay Mesa Road) from Piper Ranch Road to SR-125. Interim SR-905 (Otay Mesa Road) from Piper Ranch Road to SR-125 is a six-lane roadway segment that operates at LOS C in the existing condition. This segment of Interim SR-905 (Otay Mesa Road) is located within the County of San Diego. With the addition of 18,409 ADT from Phases 1 through 3 of the Project, the v/c ratio would be increased 0.32 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would degrade to LOS F. Per the County General Plan PFE, the addition of traffic from Phases 1 through 3 of the Project normally would be considered a significant direct impact. Based on the arterial roadway segment analysis (refer to Table 2.7-14), this segment would operate at an acceptable LOS D or better during both peak hours with traffic from Phases 1 through 3 of the Project. In addition, both the Otay Mesa Road/Piper Ranch Road and Piper Ranch Road/SR-125 southbound ramp intersections operate at acceptable levels of service during the AM and PM peak hours. Therefore, based on the peak hour operating conditions, since the segment of Interim SR-905 (Otay Mesa Road) between Piper Ranch Road and SR-125 is located under the jurisdiction of the County of San Diego, Phases 1-2 of the project is not considered to have a significant direct impact on this roadway segment and mitigation would not be required.

- Otay Mesa Road from Sanyo Avenue to Enrico Fermi Drive. This segment of Otay Mesa Road is located within the County of San Diego and operates at LOS D in the existing condition. With addition of between 10,520 ADT from Phases 1 through 3 of the proposed Project, this segment of Otay Mesa Road would operate at LOS F. Per the County General Plan PFE a significant impact would occur if a project reduces an acceptable level of service (LOS D or better) to an unacceptable level (LOS E or F). Since Phases 1 through 3 of the Project would lower the existing level of service from LOS D to LOS F, based on average daily conditions, implementation of Phases 1 through 3 of the Project would result in a significant direct impact on the segment of Otay Mesa Road between Sanyo Avenue and Enrico Fermi Drive (**Significant Direct Impact TR-2**).

- Airway Road from Airway Place to Alta Road. This segment of Airway Road is located in the county of San Diego and does not exist under existing conditions. With the addition of 13,150 ADT from Phases 1 through 3 of the proposed Project, this segment of Airway Road would operate at LOS E, and would exceed the standard of a Light Collector. Per the County General Plan PFE, LOS E is considered an unacceptable level of service. Since Phases 1 through 3 of the Project would result in an LOS E along this segment, based on average daily conditions, implementation of Phases 1 through 3 of the Project would result in a significant direct impact on the segment of Airway Road between Airway Place and Alta Road (**Significant Direct Impact TR-6**).
- Siempre Viva Road from Enrico Fermi Drive to Alta Road. These segments of Siempre Viva Road are located in the County of San Diego and the portion from Enrico Fermi Drive to Airway Place operates at LOS A under existing conditions, while the segment from Airway Place to Alta Road does not currently exist. With the addition of 13,150 ADT from Phases 1 through 3 of the proposed Project, these segments of Siempre Viva Road would operate at LOS E, and would exceed the standard of a Light Collector. Per the County General Plan PFE, LOS E is considered an unacceptable level of service. Since Phases 1 through 3 of the Project would result in an LOS E along these segments, based on average daily conditions, implementation of Phases 1 through 3 of the Project would result in a significant direct impact on the segments of Siempre Viva Road between Enrico Fermi Drive and Alta Road (**Significant Direct Impact TR-7**).
- La Media Road from Saint Andrews Avenue to Airway Road. This two-lane segment of La Media Road is located in the City of San Diego and operates at LOS F in the existing condition. With the addition of 526 ADT from Phases 1 through 3 of the proposed Project the v/c ratio would be increased by 0.06 and the level of service on this segment of La Media Road would continue to operate at LOS F. The increase in v/c exceeds the 0.01 allowed per the City of San Diego thresholds for significance for a roadway segment operating at LOS F; therefore, based on average daily conditions, Phases 1 through 3 of the proposed Project would have a significant direct impact on the segment of La Media Road between Saint Andrews Avenue and Airway Road (**Significant Direct Impact TR-8**).
- La Media Road from Airway Road to Siempre Viva Road. This two-lane segment of La Media Road is located in the City of San Diego and operates at LOS F in the existing condition. With the addition of 526 ADT from Phases 1 through 3 of the proposed Project the v/c ratio would be increased by 0.05 and the level of service on this segment of La Media Road would continue to operate at LOS F. The increase in v/c exceeds the 0.01 allowed per the City of San Diego thresholds for significance for a roadway segment operating at LOS F; therefore, based on average daily conditions, Phases 1 through 3 of the proposed Project would have a significant direct impact on the segment of La Media Road between Saint Andrews Avenue and Airway Road (**Significant Direct Impact TR-9**).
- SR-905 from Otay Mesa Road to Siempre Vive Road. This four-lane segment of SR-905 is located within the City of San Diego and operates at LOS E in the existing condition. With the addition of 10,520 ADT from Phases 1 through 3 of the Project, the v/c would be increased by 0.26 and the LOS on this segment of SR-905 would degrade to LOS F. The increase in v/c exceeds the 0.01 allowed per the City of San Diego thresholds for significance for a roadway segment operating at LOS F; therefore, based on average daily conditions Phases 1 through 3 of the proposed Project would result in a significant direct impact on the

segment of SR-905 between Otay Mesa Road and Airway Road (**Significant Direct Impact TR-3**).

- Enrico Fermi Drive from Otay Mesa Road to Airway Road. This segment of Enrico Fermi Drive, located in the County of San Diego, operates at LOS A under existing conditions. With addition of 11,835 ADT from Phases 1 through 3 of the proposed Project, this segment of Enrico Fermi Drive would operate at LOS E. Per the County General Plan PFE, a significant impact would occur if a project reduces an acceptable level of service (LOS D or better) to an unacceptable level (LOS E or F). Since Phases 1 through 3 of the Project would lower the existing level of service from LOS A to LOS E, based on average daily conditions, implementation of Phases 1 through 3 of the Project would result in a significant direct impact on the segment of Enrico Fermi Drive between Otay Mesa Road and Airway Road (**Significant Direct Impact TR-10**).

As depicted in Table 2.7-13, all other roadway segments would continue to operate at LOS D or better under existing plus Phases 1 through 3 of the proposed Project conditions. In addition, there are no residential streets located within the Project study area, and implementation of Phases 1 through 3 of the proposed Project would not contribute to a residential street exceeding its design capacity.

Existing Plus Project Phases 1 through 4 Street Segment Level of Service

Existing Plus Project Buildout (Phases 1 through 4) street segment LOS was determined by combining the existing ADT volumes with Phases 1 through 4 ADT volumes. The result of this analysis is presented on Figure 2.7-14, *Existing Plus Project Buildout (Phases 1 through 4) Street Segment Traffic Volumes*, and summarized in Table 2.7-15, *Existing Plus Project Buildout (Phases 1 through 4) Roadway Segment Level of Service Summary*.

As noted previously, a separate analysis was conducted for Interim SR-905 (Otay Mesa Road), based on the Highway Capacity Manual's (HCM) Arterial Segment Methodology and using Synchro software, in order to determine the level of service based on the average travel speeds that occur on these roadway segments. The results of this analysis are presented in Table 2.7-16, *Existing Plus Project Buildout (Phases 1 through 4) Project Arterial LOS Summary*, and are described below.

The following provides a summary of the roadway segments that are shown in Table 2.7-15 as operating at a deficient LOS (LOS E or F) with buildout of the proposed Project:

- Interim SR-905 (Otay Mesa Road) from Heritage Road to Cactus Road. In the existing condition, the six-lane segment of Interim SR-905 (Otay Mesa Road) between Heritage Road and Cactus Road, which is located in the City of San Diego, is considered congested and is operating at LOS F. With the addition of 21,096 ADT from Phases 1 through 4 of the Project, the v/c ratio would be increased by 0.35 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would continue to operate at LOS F. The increase in v/c would normally be considered a significant direct impact on these roadway segments. Based on the arterial roadway segment analysis (refer to Table 2.7-16), the segment of Interim SR-905 (Otay Mesa Road) between Heritage Road and Cactus Road also would operate at an unacceptable LOS F during at least one direction of travel during at least one peak hour. Therefore, , implementation of Phases 1 through 4 of the Project would result in a significant direct impact on the segments of Interim SR-905 (Otay Mesa Road) between Heritage Road and Cactus Road (**Significant Direct Impact TR-4)**.

- Interim SR-905 (Otay Mesa Road) from Cactus Road to Britannia Boulevard. In the existing condition, the six-lane segment of Interim SR-905 (Otay Mesa Road) between Cactus Road and Britannia Boulevard, which is located in the City of San Diego, is considered congested and is operating at LOS F. With the addition of 21,431 ADT from Phases 1 through 4 of the Project, the v/c ratio would be increased by 0.36 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would continue to operate at LOS F. The increase in v/c would normally be considered a significant direct impact on these roadway segments. Based on the arterial roadway segment analysis (refer to Table 2.7-16), the segment of Interim SR-905 (Otay Mesa Road) between Cactus Road and Britannia Boulevard also would operate at an unacceptable LOS F during at least one direction of travel during at least one peak hour. Therefore, implementation of Phases 1 through 4 of the Project would result in a significant direct impact on the segments of Interim SR-905 (Otay Mesa Road) between Cactus Road and Britannia Boulevard (**Significant Direct Impact TR-5)**.

- Interim SR-905 (Otay Mesa Road) from Britannia Boulevard to La Media Road. The segment of Interim SR-905 (Otay Mesa Road) between Britannia Boulevard and La Media Road, which is located within the City of San Diego, operates at an unacceptable LOS E under existing conditions. With the addition of 22,101 ADT from Phases 1 through 4 of the Project, the v/c ratio would be increased by 0.37 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would degrade to LOS F. The increase in v/c would normally be considered a significant direct impact on this roadway segment. Based on the arterial roadway segment analysis (refer to Table 2.7-16), the segment of Interim SR-905 (Otay Mesa Road) between Britannia Boulevard and La Media Road is projected to operate at an acceptable LOS during both peak hours. However, the Otay Mesa Road/Britannia Boulevard intersection operates at LOS F during the AM peak hour and LOS E during the PM peak hour and the Otay Mesa Road/La Media Road intersection operates at LOS E during the PM peak hour under existing plus Phases 1-4 conditions. Therefore, implementation of Phases 1 through 4 of the Project would result in a significant direct impact on the segments of Interim SR-905 (Otay Mesa Road) between Britannia Boulevard and La Media Road (**Significant Direct Impact TR-11**).

- Interim SR-905 (Otay Mesa Road) from La Media Road to Piper Ranch Road. The segment of Interim SR-905 (Otay Mesa Road) between La Media Road and Piper Ranch Road, which is located within the City of San Diego, operates at an unacceptable LOS E under existing conditions. With the addition of 23,105 ADT from Phases 1 through 4 of the Project, the v/c ratio would be increased by 0.51 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would degrade to LOS F. The increase in v/c would normally be considered a significant direct impact on this roadway segment. Based on the arterial roadway segment analysis (refer to Table 2.7-16), the segment of Interim SR-905 (Otay Mesa Road) between La Media Road and Piper Ranch Road also is projected to operate at an unacceptable LOS during at least one direction of travel during at least one peak hour. Therefore, implementation of Phases 1 through 4 of the Project would result in a significant direct impact on the segments of Interim SR-905 (Otay Mesa Road) between La Media Road and Piper Ranch Road (**Significant Direct Impact TR-1**).

- Interim SR-905 (Otay Mesa Road) from Piper Ranch Road to SR-125. Interim SR-905 (Otay Mesa Road) from Piper Ranch Road to SR-125 is a six-lane roadway segment that operates at LOS C in the existing condition. This segment of Interim SR-905 (Otay Mesa Road) is located within the County of San Diego. With the addition of 23,440 ADT from Phases 1

through 4 of the Project, the v/c ratio would be increased 0.41 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would degrade to LOS F. Per the County General Plan PFE, reducing the existing level of service from LOS C to LOS F would be considered a significant direct impact. Even based on the arterial roadway segment analysis (refer to Table 2.7-16), the segment of Interim SR-905 (Otay Mesa Road) between Piper Ranch Road and the SR-125 would operate at an unacceptable LOS F in the eastbound direction of travel during the AM peak hour. Therefore, per the County of San Diego's policy, implementation of Phases 1 through 4 of the Project would result in a significant direct impact on the segment of Interim SR-905 (Otay Mesa Road) between Piper Ranch Road and SR-125 (**Significant Direct Impact TR-12**).

- Otay Mesa Road from Sanyo Avenue to Enrico Fermi Drive. This segment of Otay Mesa Road is located within the County of San Diego and operates at LOS D in the existing condition. With addition of 13,394 ADT from Phases 1 through 4 of the proposed Project, this segment of Otay Mesa Road (Old Otay Mesa Road) would operate at LOS F. Per the County General Plan PFE, since Phases 1 through 4 of the Project would lower the existing level of service from LOS D to LOS F, based on average daily conditions, Phases 1 through 4 of the Project would result in a significant direct impact on the segment of Otay Mesa Road between Sanyo Avenue and Enrico Fermi Drive (**Significant Direct Impact TR-2**).

- Airway Road from Airway Place to Alta Road. This segment of Airway Road is located in the county of San Diego and does not exist under existing conditions. With the addition of 16,743 ADT from Phases 1 through 4 of the proposed Project, this segment of Airway Road would operate at LOS F, and would exceed the standard of a Light Collector. Per the County General Plan PFE, LOS F is considered an unacceptable level of service. Since Phases 1 through 4 of the Project would result in an LOS F along this segment, based on average daily conditions, implementation of Phases 1 through 4 of the Project would result in a significant direct impact on the segment of Airway Road between Airway Place and Alta Road (**Significant Direct Impact TR-6**).

- Siempre Viva Road from Enrico Fermi Drive to Alta Road. This segment of Siempre Viva Road is located in the County of San Diego and the portion from Enrico Fermi Drive to Airway Place operates at LOS A under existing conditions, while the segment from Airway Place to Alta Road does not currently exist. With the addition of 16,743 ADT from Phases 1 through 4 of the proposed Project, this segment of Siempre Viva Road would operate at LOS F, and would exceed the standard of a Light Collector. Per the County General Plan PFE, LOS F is considered an unacceptable level of service. Since Phases 1 through 4 of the Project would result in an LOS F along this segment, based on average daily conditions, implementation of Phases 1 through 4 of the Project would result in a significant direct impact on the segment of Siempre Viva Road between Enrico Fermi Drive and Alta Road (**Significant Direct Impact TR-7**).

- La Media Road from Saint Andrews Avenue to Airway Road. This two-lane segment of La Media Road is located in the City of San Diego and operates at LOS F in the existing condition. With the addition of 670 ADT from Phases 1 through 4 of the proposed Project the v/c ratio would be increased by 0.07 and the level of service on this segment of La Media Road would continue to operate at LOS F. The increase in v/c would exceed the 0.01 allowed per the City of San Diego thresholds for significance for a roadway segment operating at LOS F; therefore, based on average daily conditions, Phases 1 through 4 of the

proposed Project would have a significant direct impact on the segment of La Media Road between Otay Mesa Road and Airway Road (**Significant Direct Impact TR-8**).

- La Media Road from Airway Road and Siempre Viva Road. This two-lane segment of La Media Road is located in the City of San Diego and operates at LOS F in the existing condition. With the addition of 670 ADT from Phases 1 through 4 of the proposed Project the v/c ratio would be increased by 0.06 and the level of service on this segment of La Media Road would continue to operate at LOS F. The increase in v/c would exceed the 0.01 allowed per the City of San Diego thresholds for significance for a roadway segment operating at LOS F; therefore, based on average daily conditions, Phases 1 through 4 of the proposed Project would have a significant direct impact on the segment of La Media Road between Otay Mesa Road and Airway Road (**Significant Direct Impact TR-9**).
- SR-905 from Otay Mesa Road to Siempre Viva Road. This four-lane segment of SR-905 is located within the City of San Diego and operates at LOS E in the existing condition. With the addition of 13,394 ADT from Phases 1 through 4 of the Project, the v/c would be increased by 0.83 and the LOS on this segment of SR-905 would degrade to LOS F. The increase in v/c would exceed the 0.01 allowed per the City of San Diego thresholds for significance for a roadway segment operating at LOS F; therefore, based on average daily conditions, Phases 1 through 4 of the proposed Project would result in a significant direct impact on the segment of SR-905 between Otay Mesa Road and Siempre Viva Road (**Significant Direct Impact TR-3**).
- Enrico Fermi Drive from Otay Mesa Road to Airway Road. This segment of Enrico Fermi Drive, located in the City of San Diego, operates at LOS A under existing conditions. With addition of 15,069 ADT from Phases 1 through 4 of the proposed Project, this segment of Enrico Fermi Drive would operate at LOS E. Per the County General Plan PFE, since Phases 1 through 4 of the Project would lower the existing level of service from LOS A to LOS E, based on average daily conditions, Phases 1 through 4 of the Project would result in a significant direct impact on the segment of Enrico Fermi Drive between Otay Mesa Road and Airway Road (**Significant Direct Impact TR-10**).

As depicted in Table 2.7-15, all other roadway segments would continue to operate at LOS D or better under existing plus Phases 1 through 4 of the proposed Project conditions. In addition, there are no residential streets located within the Project study area, and implementation of Phases 1 through 4 of the proposed Project would not contribute to a residential street exceeding its design capacity.

Level of Service Along Internal Circulation Element and Project Access Roadway Segments

As shown on SEIR Figure 1-1, *Tentative Map No. 5505*, the Project site can be accessed via Alta Road, Airway Road, and Siempre Viva Road. It is proposed that in near term conditions the Project site would be provided access via the Alta Road/Airway Road and Alta Road/Siempre Viva Road intersections, with access to Otay Mesa Road (and future SR-905) provided via Enrico Fermi Drive and Sanyo Avenue from the west. Under long-term conditions with buildout of the EOMSP, the Project site would be provided additional access via Alta Road to the north. One of the SR-11 interchanges that are currently being studied (the proposed SR-11 interchange at Siempre Viva Road) would traverse through the northeast corner of the site within Phase 4 at approximately the locations of lots 57, 58, and 59. If the interchange is developed here, this would provide additional access to the Project site via SR-11 and Siempre Viva Road. The Project also proposes to construct 'A' Street,

'B' Street, and 'C' Street, which are non-circulation element roadways, within the Project site to facilitate internal circulation.

Figure 2.7-15 through Figure 2.7-18 illustrate the internal trip distribution percentages and Figure 2.7-19 through Figure 2.7-22 illustrate the Project-related traffic volumes on the internal and access roadway network for each phase of development. Since the internal and access roadways do not currently exist, the Project traffic volumes illustrated in Figure 2.7-19 through Figure 2.7-22 for Phases 1, Phases 1 and 2, Phases 1 through 3, and Phases 1 through 4 under existing conditions are also representative of the existing plus Project traffic volume conditions.

The Project would be required to construct the segments of Airway Road and Siempre Viva Road between Airway Place and Alta Road and would need to improve a portion of Siempre Viva Road between Enrico Fermi Drive and Airway Place in order to provide access to the Project site (refer to EIR Section 1.2.2.1 for a detailed description of proposed roadway improvements and phasing). Although the Project site can be provided additional access via the segment of Alta Road between Otay Mesa Road and Airway Road, this additional access is not required immediately and was thus not included in the analysis. In addition to constructing the off-site segments of Airway Road and Siempre Viva Road, the Project would be required to construct on-site improvements to the County circulation element roadways of Airway Road, Siempre Viva Road, and Alta Road (along the Project's frontage, only), in addition to the non circulation element roadways in order to facilitate internal circulation within the Project site. The Public Facility Element for the County of San Diego also requires that all on-site County Circulation Element roads operate at Level of Service C or better.

Table 2.7-17, *Summary of On-Site and Project Access Roadway Segment Improvements (Existing Plus Project Conditions)*, provides the roadway improvements required to facilitate the Project's access under existing plus each phase of development. It should be noted that the segment of Airway Road between Alta Road and Siempre Viva Road, Siempre Viva Road between Alta Road and the Project's boundary, and Alta Road between Airway Road and the Project's boundary are classified as bike routes with class two bike lanes. Since no parking is provided along these roadways, no additional right-of-way is required to accommodate the bike-lanes.

Table 2.7-18, *Internal and Project Access Roadway Segment Daily LOS Summary (Existing Plus Project Conditions*, provides a summary of the levels of service at the internal roadways. As shown in Table 2.7-18, with the exception of the cul-de-sac section of 'C' Street south of 'A' Street, all internal roadways would operate at an acceptable LOS C or better if designed based on the recommendations summarized in Table 2.7-17. The cul-de-sac section of 'C' Street south of 'A' Street is a non-Circulation Element roadway. Although this cul-de-sac is anticipated to exceed the volumes recommended for an industrial/commercial cul-de-sac, due to the short length of this roadway and the various driveway accesses provided, the proposed design of the cul-de-sac section of 'C' Street south of 'A' Street should adequately accommodate Project traffic, and no significant impact is identified.

The off-site roadways of Airway Road and Siempre Viva Road between Enrico Fermi Drive and Alta Road which are needed to provide access to the Project site will have to initially be constructed as Light Collector facilities. The segment of Airway Road between Enrico Fermi Drive and Alta Road would need to be improved to a standard equivalent to that of four-lane Collector Roads with the development of Phase 2 of the Project while the segment of Siempre Viva Road between Enrico

Fermi Drive and Alta Road would need to be improved to the standard equivalent to that of a four-lane Collector Road with the development of Phase 3 of the Project. Improvements to these segments of Airway Road and Siempre Viva Road already are proposed as part of the required improvements associated with Phase 2 of the proposed development and would be enforced as a condition of approval to be fulfilled prior to the recordation of the Final Map for Phase 2; as such, no significant impact is identified.

2.7.2.3 Signalized and Unsignalized Intersections

Guidelines for the Determination of Significance

The Project would have a significant adverse effect on transportation and traffic if any of the following would occur as a result of a Project-related component:

(4) The additional or redistributed ADT generated by the proposed Project would significantly increase congestion on a signalized intersection currently operating at LOS E or LOS F, or will cause a signalized intersection to operate at a LOS E or LOS F. A Project would significantly increase congestion on a signalized intersection currently operating at LOS E or LOS F if Project traffic exceeds the allowable values identified in Table 2.7-2.

(5) The Project results in traffic volume increases which would exceed one or more of the following criteria:

- *The additional or redistributed ADT generated by the proposed Project will add 21 or more peak hour trips to a critical movement of an unsignalized intersection, and cause the unsignalized intersection to operate below LOS D; or*
- *The additional or redistributed ADT generated by the proposed Project will add 21 or more peak hour trips to a critical movement of an unsignalized intersection currently operating at LOS E; or*
- *The additional or redistributed ADT generated by the proposed Project will add six or more peak hour trips to a critical movement of an unsignalized intersection, and cause the unsignalized intersection to operate at LOS F; or*
- *The additional or redistributed ADT generated by the proposed Project would add six or more peak hour trips to a critical movement of an unsignalized intersection currently operating at LOS F; or*
- *Based upon an evaluation of existing accident rates, the signal priority list, intersection geometrics, proximity of adjacent driveways, sight distance, or other factors, the project would significantly impact the operations of the intersection.*

Threshold 4 was selected for evaluation to determine potential Project-related traffic impacts to signalized intersections. Significance is defined by the County's PFE, the County's Transportation and Traffic Guidelines For Determining Significance, and the City of San Diego's *CEQA Significance Thresholds*. Non-compliance with these standards could result in a project that is inconsistent with County standards.

Threshold 5 was selected in order to determine potential Project impacts to unsignalized intersections. The County has determined significance criteria for unsignalized intersections based

upon a minimum number of trips added to a critical movement at an unsignalized intersection. Exceeding the values presented in Table 2.7-2 would result in adverse traffic conditions and delays at unsignalized intersections.

Table 2.7-2 ALLOWABLE INCREASES ON CONGESTED INTERSECTIONS

COUNTY OF SAN DIEGO		
LEVEL OF SERVICE	**SIGNALIZED**	**UNSIGNALIZED**
LOS E	Delay of 2 seconds or less	20 or less peak hour trips on a critical movement
LOS F	Either a delay of 1 second, or 5 peak hour trips or less on a critical movement	5 or less peak hour trips on a critical movement
CITY OF SAN DIEGO		
LEVEL OF SERVICE	**DELAY (SEC.)**	
LOS E	2.0	
LOS F	1.0	

Notes:
1. A critical movement is an intersection movement (right turn left turn, through-movement) that experiences excessive queues, which typically operates at LOS F. Also if a project adds significant volume to a minor roadway approach, a gap study should be provided that details the headways between vehicles on the major roadway.
2. By adding proposed Project trips to all other trips from a list of projects, this table is used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project is responsible for mitigating its share of the cumulative impact.
3. The County may also determine impacts have occurred on roads even when a project's direct or cumulative impacts do not trigger an unacceptable level of service, when such traffic uses a significant amount of remaining road capacity.
4. For determining significance at signalized intersections with LOS F conditions, the analysis must evaluate both the delay and the number of trips on a critical movement, exceedance of either criteria result in a significant impact.

Analysis

Existing Plus Project Phase 1 Intersection Level of Service (Synchro Analysis)

Traffic generated by Phase 1 of the Project during the AM and PM peak hours was added to existing traffic volumes to identify direct Project impacts to signalized and unsignalized intersections. Table 2.7-19, *Existing Plus Project Phase 1 Intersection Level of Service Summary*, presents the resulting peak hour LOS and duration of delay at study area intersections. As shown in the table, all study area intersections would operate at LOS D or better during the AM and PM peak hours following implementation of Phase 1 of the Project, with the exception of the intersection of Siempre Viva Road/Paseo De Las Americas, which is described below:

- Siempre Viva Road/Paseo de las Americas Intersection. The signalized intersection of Siempre Viva Road and Paseo de las Americas is located within the City of San Diego and operates at LOS C during the AM peak hour and LOS D during the PM peak hour in the existing condition. With the addition of 540 AM peak hour trips from Phase 1 of the Project the intersection will continue to operate at LOS C during the AM peak hour. With the addition of 540 PM peak hour trips from Phase 1 of the Project the PM peak hour delay will be increased by 61.7 seconds degrading the LOS to LOS F. The increase in delay exceeds the one (1) second allowed per the City of San Diego thresholds for significance for an intersection operating at LOS F; therefore, implementation of Phase 1 of the Project would result in a significant direct impact on the Siempre Viva Road/Paseo De Las Americas intersection (**Significant Direct Impact TR-13**).

As shown in Table 2.7-19, all other intersections would continue to operate at LOS D or better under existing plus Phase 1 Project conditions.

Existing Plus Project Phase 1 ILV Analysis

Table 2.7-20, *Existing Plus Phase I ILV Analysis,* summarizes the existing without and with Phase 1 project conditions intersection ILV analysis. As shown in Table 2.7-20, the Otay Mesa Road/Heritage Road and Otay Mesa Road/Cactus Road intersections operate under unstable flow during the AM and PM peak hours, and the Otay Mesa Road/SR-905 Connector intersection operates at stable flow during the AM peak hour and at unstable flow during the PM peak hour under existing plus Phase 1 project conditions. All other intersections operate under stable flow during the AM and PM peak hours under existing without and with Phase 1 project conditions. As previously noted, since the upper limits of the ILV analysis is based on the premise of an operating condition of LOS C or better, and since LOS D was considered an acceptable level of service, the ILV analysis is not utilized to determine Project significance and is provided only for the purpose of disclosure.

Existing Plus Project Phases 1 and 2 Intersection Level of Service (Synchro Analysis)

Traffic generated by Phases 1 and 2 of the Project during the AM and PM peak hours was added to existing traffic volumes to identify direct Project impacts to signalized and unsignalized intersections. Table 2.7-21, *Existing Plus Project Phases 1 and 2 Intersection Level of Service Summary*, presents the resulting peak hour LOS and duration of delay at study area intersections. As shown in the table, all study area intersections would operate at LOS D or better during the AM and PM peak hours following implementation of Phases 1 and 2 of the Project, with the exception of the following intersections:

- Otay Mesa Road/Interim SR-905 Connector. This intersection, located in the County of San Diego, operates at LOS B during the AM peak hour and LOS C during the PM peak hour under existing conditions. With the addition of 1,239 AM peak hour trips from Phases 1 and 2 of the Project, the AM peak hour delay will be increased by 22.1 seconds degrading the existing LOS to LOS C; however, impacts during the AM peak hour would not be considered significant. With the addition of 1,751 PM peak hour trips from Phases 1-2 of the Project, the PM peak hour delay will be increased by 89.1 seconds degrading the existing LOS to LOS F. Per the County General Plan PFE, implementation Phases 1 and 2 of the proposed Project would therefore result in a significant direct impact at the Otay Mesa Road/Interim SR-905 Connector intersection during the PM peak hour (**Significant Direct Impact TR-14**).

- Otay Mesa Road/Sanyo Avenue. This intersection, located in the County of San Diego, currently operates at LOS A during the AM peak hour and LOS B during the PM peak hour. With the addition of 1,068 PM peak hour trips from Phases 1 and 2 of the Project, the PM peak hour delay would be increased by 43.6 seconds degrading the LOS to LOS E. Per the County General Plan PFE, implementation of Phases 1 and 2 of the Project would therefore result in a significant direct impact at the Otay Mesa Road/Sanyo Avenue intersection (**Significant Direct Impact TR-15**).

- Otay Mesa Road/Enrico Fermi Drive. This intersection, located in the County of San Diego, operates at LOS B during the AM peak hour and LOS A during the PM peak hour under existing conditions. With the addition of 854 AM peak hour trips from Phases 1 and 2 of the

Project, the AM peak hour delay would be increased by 64.9 seconds and would degrade the existing LOS to LOS E. Per the PFE, Phases 1 and 2 of the proposed would therefore result in a significant direct impact at the Otay Mesa Road/Enrico Fermi Drive intersection (**Significant Direct Impact TR-16**).

- Siempre Viva Road/Paseo De Las Americas. This intersection, located in the City of San Diego, operates at LOS C during the AM peak hour and LOS D during the PM peak hour under existing conditions. With the addition of 960 AM peak hour trips and from Phases 1 and 2 of the Project, the intersection would continue to operate at LOS C during the AM peak hour. With the addition of 960 PM peak hour trips from Phases 1 and 2 of the Project the PM peak hour delay would be increased by 190.3 seconds degrading the LOS to LOS F. The increase in delay would exceed the one (1) second allowed per the City of San Diego thresholds for significance for an intersection operating at LOS F; therefore, Phases 1 and 2 of the Project would result in a significant direct impact on the Siempre Viva Road/Paseo De Las Americas intersection (**Significant Direct Impact TR-13**).
- Siempre Viva Road/Michael Faraday Drive. This intersection, located in the City of San Diego, operates at LOS C or better during both peak hours under existing conditions. With the addition of Phases 1 and 2 of the Project, the northbound and shared southbound left-through movements would operate at LOS F during the AM peak hour and LOS E during the PM peak hour. The proposed Project would account for increases in delay between 31.4 and 136.7 seconds on the critical movements. The increase in delay would exceed the one (1) second allowed per the City of San Diego thresholds for significance for an intersection operating at LOS F and two (2) seconds allowed for intersections operating at LOS E; therefore, Phases 1 and 2 of the Project would result in a significant direct impact on the Siempre Viva Road/Michael Faraday intersection (**Significant Direct Impact TR-17**).

As shown in Table 2.7-21, all other intersections would continue to operate at LOS D or better under existing plus Phases 1 and 2 Project conditions.

Existing Plus Project Phases 1 and 2 ILV Analysis

Table 2.7-22, *Existing Plus Phases 1 and 2 ILV Analysis,* summarizes the existing without and with Phases 1-2 project conditions intersection ILV analysis. As shown in Table 2.7-22, the Otay Mesa Road/SR-905 Connector intersection operates under unstable flow during the AM peak hour and at over capacity during the PM peak hour under existing plus Phases 1 and 2 Project conditions. All other intersections operate under stable or unstable flow during the AM and PM peak hours with Phases 1 and 2 Project conditions. As previously noted, since the upper limits of the ILV analysis is based on the premise of an operating condition of LOS C or better, and since LOS D was considered an acceptable level of service, the ILV analysis is not utilized to determine Project significance and is provided only for the purpose of disclosure.

Existing Plus Project Phases 1 Through 3 Intersection Level of Service (Synchro Analysis)

Traffic generated by Phases 1 through 3 of the Project during the AM and PM peak hours was added to existing traffic volumes to identify direct Project impacts to signalized and unsignalized intersections. Table 2.7-23, *Existing Plus Project Phases 1 Through 3 Intersection Level of Service Summary,* presents the resulting peak hour LOS and duration of delay at study area intersections. As shown in the table, all study area intersections would operate at LOS D or better during the AM and

PM peak hours following implementation of Phase 1 through 3 of the Project, with the exception of the following intersections:

- Interim SR-905 (Otay Mesa Road)/Heritage Road. This intersection, located in the City of San Diego, operates at LOS C during both the AM and PM peak hours under existing conditions. With the addition of 1,956 AM peak hour trips and 1,956 PM peak hour trips from Phases 1 through 3 of the Project the AM peak hour delay would be increased by 70.1 seconds and the PM peak hour delay would be increased by 48.6 seconds, which would degrade the AM peak hour LOS to LOS F and would degrade the PM peak hour LOS to LOS E. The increase in delay exceeds the two (2) seconds allowed per the City of San Diego thresholds for significance for an intersection operating at LOS E and the one (1) second allowed for an intersection operating at LOS F; therefore, implementation of Phases 1 through 3 of the proposed Project would result in a significant direct impact on the Interim SR-905 (Otay Mesa Road)/Heritage Road intersection (**Significant Direct Impact TR-18**).
- Interim SR-905 (Otay Mesa Road)/Cactus Road. This intersection, located in the City of San Diego, operates at LOS A during the AM peak hour and LOS B during the PM peak hour under existing conditions. With the addition of 2,020 AM peak hour trips from Phases 1 through 3 of the Project the AM peak hour delay would be increased by 72.5 seconds which would degrade the AM peak hour LOS to LOS F. The increase in delay exceeds the one (1) second allowed per the City of San Diego thresholds for significance for an intersection operating at LOS F; therefore, implementation of Phases 1 through 3 of Project would result in a significant direct impact on the Interim SR-905 (Otay Mesa Road)/Cactus Road intersection (**Significant Direct Impact TR-19**).
- Interim SR-905 (Otay Mesa Road)/SR-125 Northbound Ramp. This intersection, located in the County of San Diego, operates at LOS A during both peak hours under existing conditions. With the addition of 2,589 PM peak hour trips from Phases 1 through 3 of the Project, the PM peak hour delay would be increased by 124.2 seconds which would degrade the PM peak hour LOS to LOS F. Per the County General Plan PFE, implementation of Phases 1through 3 of the proposed Project would result in a significant direct impact at the Otay Mesa Road/SR-125 Northbound Ramp intersection (**Significant Direct Impact TR-20**).
- Otay Mesa Road/Interim SR-905 Connector. This intersection, located in the County of San Diego, operates at LOS B during the AM peak hour and LOS C during the PM peak hour under existing conditions. With the addition of 1,831 AM peak hour trips from Phases 1 through 3 of the Project, the AM peak hour delay would be increased by 73.9 seconds which would degrade the existing LOS to LOS F. With the addition of 2,589 PM peak hour trips from Phases 1 through 3 of the Project, the PM peak hour delay would be increased by 217.8 seconds which would degrade the existing LOS to LOS F. Per the County General Plan PFE, implementation of Phases 1 through 3 of the proposed Project would result in a significant direct impact at the Otay Mesa Road/Interim SR-905 Connector intersection (**Significant Direct Impact TR-14**).
- Otay Mesa Road/Sanyo Avenue. This intersection, located in the County of San Diego, operates at LOS B during the PM peak hour. With the addition of 1,578 PM peak hour trips from Phases 1 through 3 of the Project to the intersection, the PM peak hour delay would be increased by 136.8 seconds and the existing LOS would degrade to LOS F. Per the County General Plan PFE, implementation of Phases 1 through 3 of the Project would result in a

significant direct impact at the Otay Mesa Road/Sanyo Avenue intersection in the PM peak hour (**Significant Direct Impact TR-15**).

- Otay Mesa Road/Enrico Fermi Drive. This intersection, located in the County of San Diego, operates at LOS B during the AM peak hour and LOS A during the PM peak hour under existing conditions. With the addition of 1,262 AM peak hour trips and 1,262 PM peak hour trips from Phases 1 through 3 of the Project, the AM peak hour delay would be increased by 201.8 seconds and the PM peak hour delay would be increased by 102.2 seconds degrading the existing LOS to LOS F during both peak hours. Per the County General Plan PFE, implementation of Phases 1 through 3 of the proposed Project would result in a significant direct impact at the Otay Mesa Road/Enrico Fermi Drive intersection (**Significant Direct Impact TR-16**).

- Airway Road/Enrico Fermi Drive. This intersection, located in the County of San Diego, operates at LOS A during the AM peak hour and LOS B during the PM peak hour under existing conditions. With the addition of 1,736 AM peak hour trips and 1,736 PM peak hour trips from Phases 1 through 3 of the Project, the AM peak hour delay would be increased by 65.4 seconds and the PM peak hour delay would be increased by 44.9 seconds and would degrade the existing LOS to LOS E during both peak hours. Per the County General Plan PFE, implementation of Phases 1 through 3 of the proposed Project would result in a significant direct impact at the Airway Road/Enrico Fermi Drive intersection (**Significant Direct Impact TR-21**).

- Siempre Viva Road/Paseo De Las Americas. This intersection, located in the City of San Diego, operates at LOS C during the AM peak hour and LOS D during the PM peak hour under existing conditions. With the addition of 1,420 AM peak hour trips and from Phases 1 through 3 of the Project, the intersection would continue to operate at LOS C during the AM peak hour. With the addition of 1,420 PM peak hour trips from Phases 1 through 3 of the Project, the PM peak hour delay would be increased by 365.0 seconds degrading the LOS to LOS F. The increase in delay would exceed the one (1) second allowed per the City of San Diego thresholds for significance for an intersection operating at LOS F; therefore, implementation of Phases 1 through 3 of the Project would result in a significant direct impact on the Siempre Viva Road/Paseo De Las Americas intersection (**Significant Direct Impact TR-13**).

- Siempre Viva Road/Michael Faraday. This intersection, located in the County of San Diego, operates at LOS C or better during both peak hours under existing conditions. With the addition of Phases 1 through 3 of the Project, the northbound and shared southbound left-through movements would operate at LOS F during the AM and PM peak hours. The proposed Project would account for increases in delay between 150.7 and 299.3 seconds on the critical movements. The increase in delay exceeds the one (1) second allowed per the City of San Diego thresholds for significance for an intersection operating at LOS F; therefore, implementation of Phases 1 through 3 of the Project would result in a significant direct impact on the Siempre Viva Road/Michael Faraday intersection (**Significant Direct Impact TR-17**).

- Siempre Viva Road/Enrico Fermi Drive. This intersection, located in the County of San Diego, operates at LOS B during both peak hours under existing conditions. With the addition of 1,578 AM peak hour trips and 1,578 PM peak hour trips from Phases 1 through 3 of the Project, the AM peak hour delay would be increased by 155.6 seconds and the PM

peak hour delay would be increased by 74.1 seconds which would degrade the existing LOS to LOS F during both peak hours. Per the County General Plan PFE, implementation of Phases 1 through 3 of the proposed Project would result in a significant direct impact at the Siempre Viva Road/Enrico Fermi Drive intersection (**Significant Direct Impact TR-22**).

As shown in Table 2.7-23, all other intersections would continue to operate at LOS D or better under existing plus Phases 1 through 3 Project conditions.

Existing Plus Project Phases 1 through 3 ILV Analysis

Table 2.7-24, *Existing Plus Phases 1 and 2 ILV Analysis*, summarizes the existing without and with Phases 1 through 3 project conditions intersection ILV analysis. As shown in Table 2.7-24, the following intersections operate at over capacity during at least one of the peak hours under existing plus Phases 1 through 3 project conditions:

- Otay Mesa Road/Heritage Road;
- Otay Mesa Road/Cactus Road;
- Otay Mesa Road/La Media Road;
- Otay Mesa Road/Piper Ranch Road;
- Otay Mesa Road/SR-125 NB Ramp; and
- Otay Mesa Road SR-905 Connector.

The Otay Mesa Road/Britannia Boulevard intersection operates under unstable flow during both peak hours, while the Otay Mesa Road/SR-125 SB Ramp, Siempre Viva Road/SB SR-905 to EB Siempre Viva Road, and Siempre Viva Road/NB-SR-905 intersections operate under stable flow during both peak hours under existing plus Phases 1 through 3 project conditions. As previously noted, since the upper limits of the ILV analysis is based on the premise of an operating condition of LOS C or better, and since LOS D was considered an acceptable level of service, the ILV analysis is not utilized to determine Project significance and is provided only for the purpose of disclosure.

Existing Plus Project Phases 1 Through 4 Intersection Level of Service (Synchro Analysis)

Traffic generated by Project buildout (Phases 1 through 4) during the AM and PM peak hours was added to existing traffic volumes to identify direct Project impacts to signalized and unsignalized intersections. Table 2.7-25, *Existing Plus Project Phases 1 Through 4 Intersection Level of Service Summary*, presents the resulting peak hour LOS and duration of delay at study area intersections. As shown in the table, all study area intersections would operate at LOS D or better during the AM and PM peak hours following implementation of Phase 1 through 4 of the Project, with the exception of the following intersections:

- Interim SR-905 (Otay Mesa Road)/Heritage Road. This intersection, located in the City of San Diego, operates at LOS C during both the AM and PM peak hours under existing conditions. With the addition of 2,491 AM peak hour trips and 2,491 PM peak hour trips from Phases 1 through 4 of the Project, the AM peak hour delay would be increased by 111.3 seconds and the PM peak hour delay would be increased by 83.7 seconds degrading the AM and PM peak hour LOS to LOS F. The increase in delay would exceed the one (1) second allowed for an intersection operating at LOS F; therefore, implementation of Phases 1-4 of the proposed Project would result in a significant direct impact on the Interim SR-905 (Otay Mesa Road)/Heritage Road intersection. (**Significant Direct Impact TR-18**).

- Interim SR-905 (Otay Mesa Road)/Cactus Road. This intersection, located in the City of San Diego, operates at LOS A during the AM peak hour and LOS B during the PM peak hour under existing conditions. With the addition of 2,571 AM peak hour trips from Phases 1 through 4 of the Project the AM peak hour delay would be increased by 115.8 seconds which would degrade the AM peak hour LOS to LOS F. The increase in delay would exceed the one (1) second allowed per the City of San Diego thresholds for significance for an intersection operating at LOS F; therefore, implementation of Phases 1 through 4 of Project would result in a significant direct impact on the Interim SR-905 (Otay Mesa Road)/Cactus Road intersection (**Significant Direct Impact TR-19**).

- Interim SR-905 (Otay Mesa Road)/Britannia Boulevard. This intersection, located in the City of San Diego, operates at LOS A during the AM peak hour and LOS B during the PM peak hour under existing conditions. With the addition of 2,652 AM peak hour trips and 2,652 PM peak hour trips from Phases 1 through 4 of the Project the AM peak hour delay would be increased by 68.1 seconds and the PM peak hour delay would be increased by 55.0 seconds, which would degrade the AM peak hour LOS to LOS F and the PM peak hour LOS to LOS E. The increase in delay would exceed the two (2) seconds allowed per the City of San Diego thresholds for significance for an intersection operating at LOS E and the one (1) second allowed per the City of San Diego thresholds for significance for an intersection operating at LOS F; therefore, implementation of Phases 1 through 4 of Project would result in a significant direct impact on the Interim SR-905 (Otay Mesa Road)/Britannia Boulevard intersection (**Significant Direct Impact TR-23**).

- Interim SR-905 (Otay Mesa Road)/La Media Road. This intersection, located in the City of San Diego, operates at LOS C during both peak hours under existing conditions. With the addition of 2,772 AM peak hour trips and 2,772 PM peak hour trips from Phases 1 through 4 of the Project, the PM peak hour delay would be increased by 68.0 seconds, which would degrade the PM peak hour LOS to LOS E. The increase in delay would exceed the two (2) seconds allowed per the City of San Diego thresholds for significance for an intersection operating at LOS E; therefore, implementation of Phases 1 through 4 of Project would result in a significant direct impact on the Interim SR-905 (Otay Mesa Road)/La Media Road intersection. (**Significant Direct Impact TR-24**).

- Interim SR-905 (Otay Mesa Road)/Piper Ranch Road. This intersection, located in the City of San Diego, operates at LOS A during both peak hours under existing conditions. With the addition of 2,812 AM peak hour trips from Phases 1 through 4 of the Project, the AM peak hour delay would be increased by 83.9 seconds and would degrade the AM peak hour LOS to LOS F. The increase in delay would exceed the one (1) second allowed per the City of San Diego thresholds for significance for an intersection operating at LOS F; therefore, implementation of Phases 1 through 4 of Project would result in a significant direct impact on the Interim SR-905 (Otay Mesa Road)/Piper Ranch Road intersection (**Significant Direct Impact TR-25**).

- Interim SR-905 (Otay Mesa Road)/SR-125 Southbound Ramp. This intersection, located in the County of San Diego, operates at LOS B during the AM peak hour and LOS A during the PM peak hour under existing conditions. With the addition of 2,974 PM peak hour trips from Phases 1 through 4 of the Project, the PM peak hour delay would be increased by 62.7 seconds degrading the PM peak hour LOS to LOS E. Per the County General Plan PFE, implementation of Phases 1 through 4 of the proposed Project would result in a significant

direct impact at the Otay Mesa Road/SR-125 Southbound Ramp intersection. (**Significant Direct Impact TR-26**).

- Interim SR-905 (Otay Mesa Road)/SR-125 Northbound Ramp. This intersection, located in the County of San Diego, operates at LOS A during both peak hours under existing conditions. With the addition of 3,296 PM peak hour trips from Phases 1 through 4 of the Project, the PM peak hour delay would be increased by 209.1 seconds degrading the PM peak hour LOS to LOS F. Per the County General Plan PFE, implementation of Phases 1 through 4 of the proposed Project would result in a significant direct impact at the Otay Mesa Road/SR-125 Northbound Ramp intersection. (**Significant Direct Impact TR-20**).

- Otay Mesa Road/Interim SR-905 Connector. This intersection, located in the County of San Diego, operates at LOS B during the AM peak hour and LOS C during the PM peak hour under existing conditions. With the addition of 2,331 AM peak hour trips and 3,296 PM peak hour trips from Phases 1 through 4 of the Project, the AM peak hour delay would be increased by 129.3 seconds and the PM peak hour delay would be increased by 347.6 seconds, which would degrade the existing AM and PM LOS to LOS F. Per the County General Plan PFE, implementation of Phases 1 through 4 of the proposed Project would result in a significant direct impact at the Otay Mesa Road/Interim SR-905 Connector intersection (**Significant Direct Impact TR-14**).

- Otay Mesa Road/Sanyo Avenue. This intersection, located in the County of San Diego, operates at LOS A during the AM peak hour and LOS B during the PM peak hour under existing conditions. With the addition of 2,009 PM peak hour trips from Phases 1 through 4 of the Project, the PM peak hour delay would be increased by 218.8 seconds and the LOS would be degraded to LOS F. Per the General Plan PFE, implementation of Phases 1 through 4 of the Project would result in a significant direct impact at the Otay Mesa Road/Sanyo Avenue intersection. (**Significant Direct Impact TR-15**).

- Otay Mesa Road/Enrico Fermi Drive. This intersection, located in the County of San Diego, operates at LOS B during the AM peak hour and LOS A during the PM peak hour under existing conditions. With the addition of 1,607 AM peak hour trips and 1,607 PM peak hour trips from Phases 1 through 4 of the Project, the AM peak hour delay would be increased by 329.8 seconds and the PM peak hour delay would be increased by 198.5 seconds degrading the existing LOS to LOS F during both peak hours. Per the County General Plan PFE, implementation of Phases 1 through 4 of the proposed Project would result in a significant direct impact at the Otay Mesa Road/Enrico Fermi Drive intersection (**Significant Direct Impact TR-16**).

- Airway Road/Sanyo Avenue. This intersection, located in the City of San Diego, operates at LOS B under existing conditions. With the addition of 402 AM peak hour trips (322 to the southbound approach) from phases 1 through 4 of the Project, the southbound approach at the Airway Road/Sanyo Avenue would operate at LOS E during the AM peak hour; however, the overall intersection would continue to operate at LOS D. All critical movements as well as the overall intersection would continue to operate at an acceptable LOS D or better during the PM peak hour under existing plus build out of the proposed Project (phases 1 through 4) conditions. Since the overall intersection continues to operate at an acceptable level of service during both peak hours, implementation of Phases 1-4 of the proposed Project would not result in a significant direct impact at the Airway Road/Sanyo Avenue intersection.

- Airway Road/Enrico Fermi Drive. This intersection is located in the County of San Diego and operates at LOS A during the AM peak hour and LOS B during the PM peak hour under existing conditions. With the addition of 2,210 AM peak hour trips and 2,210 PM peak hour trips from Phases 1 through 4 of the Project, the AM peak hour delay would be increased by 145.2 seconds and the PM peak hour delay would be increased by 130.4 seconds, which would degrade the existing LOS to LOS F during both peak hours. Per the County General Plan PFE, implementation of Phases 1 through 4 of the proposed Project would result in a significant direct impact at the Airway Road/Enrico Fermi Drive intersection (**Significant Direct Impact TR-21)**.
- Siempre Viva Road/Paseo De Las Americas. This intersection is located in the City of San Diego and operates at LOS C during the AM peak hour and LOS D during the PM peak hour under existing conditions. With the addition of 1,808 AM peak hour trips and from Phases 1 through 4 of the Project, the intersection would continue to operate at LOS C during the AM peak hour. With the addition of 1,808 PM peak hour trips from Phases 1 through 4 of the Project, the PM peak hour delay would be increased by 531.4 seconds and would degrade the LOS to LOS F. The increase in delay exceeds the one (1) second allowed per the City of San Diego thresholds for significance for an intersection operating at LOS F; therefore, implementation of Phases 1-4 of the Project would result in a significant direct impact on the Siempre Viva Road/Paseo De Las Americas intersection (**Significant Direct Impact TR-13**).
- Siempre Viva Road/Michael Faraday. This intersection is located in the County of San Diego. Under existing conditions, all critical movements operate at LOS C or better during both peak hours. With the addition of Phases 1 through 4 of the Project, the northbound and shared southbound left-through movements would operate at LOS F during the AM and PM peak hours with a delay that is too high to be calculated. When the delays are extremely high at stop-controlled intersections, any increase in traffic is anticipated to increase the delay by more than the one (1) second allowed per the City of San Diego thresholds for significance for an intersection operating at LOS F. Therefore, implementation of Phases 1 through 4 of the Project would result in a significant direct impact on the Siempre Viva Road/Michael Faraday intersection (**Significant Direct Impact TR-17**).
- Siempre Viva Road/Enrico Fermi Drive. This intersection, located in the County of San Diego, operates at LOS B during both peak hours under existing conditions. With the addition of 2,009 AM peak hour trips and 2,009 PM peak hour trips from Phases 1 through 4 of the Project, the AM peak hour delay would be increased by 275.0 seconds and the PM peak hour delay would be increased by 180.5 seconds which would degrade the existing LOS to LOS F during both peak hours. Per the County General Plan PFE, implementation of Phases 1 through 4 of the proposed Project would result in a significant direct impact at the Siempre Viva Road/Enrico Fermi Drive intersection (**Significant Direct Impact TR-22**).

As shown in Table 2.7-25, all other intersections would continue to operate at LOS D or better under existing plus Phases 1 through 4 Project conditions.

Existing Plus Project Phases 1 Through 4 ILV Analysis

Table 2.7-26, *Existing Plus Phases 1 through 4 ILV Analysis*, summarizes the existing without and with Phases 1 through 4 project conditions intersection ILV analysis. As shown in Table 2.7-26, the

following intersections operate at over capacity during at least one of the peak hours under existing plus Phases 1 through Project conditions:

- Otay Mesa Road/Heritage Road;
- Otay Mesa Road/Cactus Road;
- Otay Mesa Road/Britannia Boulevard;
- Otay Mesa Road/La Media Road;
- Otay Mesa Road/Piper Ranch Road;
- Otay Mesa Road/SR-125 NB Ramp; and
- Otay Mesa Road SR-905 Connector.

The Otay Mesa Road/SR-125 SB Ramp intersection operates under unstable flow during both peak hours, while both the Siempre Viva Road/SB SR-905 to EB Siempre Viva Road intersection and Siempre Viva Road/NB-SR-905 intersection operate under stable flow during both peak hours under existing plus Phases 1 through 4 project conditions. As previously noted, since the upper limits of the ILV analysis is based on the premise of an operating condition of LOS C or better, and since LOS D was considered an acceptable level of service, the ILV analysis is not utilized to determine Project significance and is provided only for the purpose of disclosure.

Level of Service Along Internal Circulation Element and Project Access Roadway Segments

Table 2.7-27, *Internal Intersection Summary*, provides a summary of the levels of service at internal intersections for Existing plus each phase of the proposed Project. Figure 2.7-23 through Figure 2.7-26 depict the lane configurations and proposed traffic control for each phase of the proposed Project. As shown in Table 2.7-27, all intersections would operate at an acceptable LOS D or better during both peak hours. As illustrated in Figure 2.7-23 through Figure 2.7-26, under Existing plus Phases 1 through 4 conditions, signals are recommended to be installed along with other improvements at the Airway Road/Alta Road, Airway Road/Siempre Viva Road, and Siempre Viva Road/Alta Road intersections. These conditions are evaluated as significant impacts for which mitigation would be required (**Significant Direct Impacts TR-27, TR-28 and TR-29**).

2.7.2.4 Freeway Ramps and Congestion Management Plan

Guidelines for the Determination of Significance

The Project would have a significant adverse effect on transportation and traffic if the following would occur as a result of a Project-related component:

(6) The proposed Project would generate more than 2,400 ADT or 200 peak hour trips, and would exceed the thresholds of significance identified by SANDAG in the Congestion Management Plan (Table 2.7-3).

Threshold 6 was selected for evaluation in order to assess the potential of the proposed Project to impact freeways, Circulation Element roads, signalized intersections, and freeway ramps. SANDAG's CMP contains thresholds to evaluate freeways, Circulation Element roads, signalized intersections and freeway ramps in terms of volume-to-capacity ratio (V/C), LOS, and delay times at intersections and freeway ramps. Non-compliance with these standards would result in a project that is inconsistent with SANDAG's CMP, and therefore could inhibit the ability of SANDAG to improve traffic conditions throughout the County.

Table 2.7-3 CONGESTION MANAGEMENT PLAN SIGNIFICANCE THRESHOLDS FOR CIRCULATION ELEMENT ROADS, SIGNALIZED INTERSECTIONS, AND RAMPS

Level of Service With Project	Allowable Change Due to Project Impact						
	Freeways		Roadway Segments*		Intersections**	Ramps	Ramps with >15 min. Delay
	V/C	Speed (mph)	V/C	Speed (mph)	Delay (sec.)	Delay (min.)	Delay (min.)
E & F	0.01	1	0.02	1	2	-	2

* For County arterials, which are not identified in SANDAG's Regional Transportation Plan and Congestion Management Plan as regionally significant arterials, significance may be measured based upon an increase in average daily trips. The allowable change in ADT due to project impacts in this instance would be as identified in Table 2.7-1.

** Signalized intersections.

Key
V/C = Volume to Capacity Ratio
Speed = Speed measured in miles per hour.
Delay = Average stopped delay per vehicle measured in seconds or minutes
LOS = Level of Service
ADT = Average Daily Trips

Analysis

State Route Facilities and Ramps

For all study scenarios, it is assumed that completion of the SR-905 Phases 1A and 1B projects would not be completed prior to full buildout of the proposed Project. As such, for the Existing Plus Project Phase 1 condition, the only freeways within the Project vicinity which would receive 50 or more ADT from the proposed Project are the portion of SR-125 north of Otay Mesa Road. Within the Project vicinity, only five freeway ramps are projected to be in operation upon buildout of the proposed Project, and include:

- Siempre Viva Rd (E-W) @ SR-905 SB to EB Siempre Viva (N-S)
- Siempre Viva Rd (E-W) @ SR-905 SB to WB Siempre Viva (N-S)
- Siempre Viva Rd (E-W) @ SR-905 NB Ramp (N-S)
- Otay Mesa Road (E-W) @ SR-125 SB Ramp
- Otay Mesa Road (E-W) @ SR-125 NB Ramp

The following section evaluates the Project's potential to cause significant impacts to study area freeway segments and on-ramps during each phase of the proposed development.

Existing Condition Plus Project Phase 1

As previously indicated in SEIR Table 2.7-9, implementation of Phase 1 of the proposed Project would result in the addition of 4,000 trips to the segment of SR-905 between Otay Mesa Road and Siempre Viva Road. With the addition of Project traffic to this segment of SR-905, the segment would degrade from an existing LOS E to LOS F. As such, implementation of Phase 1 of the proposed Project would result in a significant direct impact to the SR-905 segment located between Otay Mesa Road and Siempre Viva Road (**Significant Direct Impact TR-4**).

As depicted in SEIR Table 2.7-9, SR-125 north of Otay Mesa Road would continue to operate at LOS A with the addition of 2,000 daily trips from Phase 1 of the proposed Project. As such, implementation of Phase 1 of the proposed Project would not result in a significant impact to this freeway segment.

As indicated in SEIR Table 2.7-19, the five study area on-ramps are projected to operate at an acceptable LOS with the addition of Phase 1 Project traffic. The southbound SR-905 off-ramp connecting to eastbound Siempre Viva Road is projected to operate at LOS A during both peak hours with the addition of Phase 1 Project traffic. The southbound SR-905 off-ramp connecting to westbound Siempre Viva Road is projected to operate at LOS B in the AM peak hour and LOS C in the PM peak hour with the addition of Phase 1 Project traffic. The SR-905 northbound on-ramp from Siempre Viva Road is projected to operate at LOS B during the AM peak hour and LOS A during the PM peak hour with the addition of Phase 1 Project traffic. The SR-125 SB Ramp from Otay Mesa Road would operate at LOS B in the AM peak hour and LOS A in the PM peak hour with the addition of Phase 1 Project traffic. The SR-125 NB Ramp from Otay Mesa Road would operate at LOS A during both peak hours with the addition of Phase 1 Project traffic.

Existing Condition Plus Project Phases 1 and 2

As previously indicated in SEIR Table 2.7-11, implementation of Phases 1 and 2 of the proposed Project would result in the addition of 889 trips to the segment of SR-905 south of Siempre Viva Road. With the addition of Project traffic to this freeway segment, the segment would continue to operate at LOS A. As such, implementation of Phases 1 and 2 of the proposed Project would not result in a significant impact to the SR-905 freeway segment located southerly of Siempre Viva Road. However, implementation of Phases 1 and 2 would result in the addition of 7,114 trips to the segment of SR-905 between Otay Mesa Road and Siempre Viva Road, which would degrade the existing LOS from LOS E to LOS F. As such, implementation of Phases 1 and 2 of the proposed Project would result in a significant direct impact to the SR-905 segment located between Otay Mesa Road and Siempre Viva Road (**Significant Direct Impact TR-4**).

As depicted in SEIR Table 2.7-11, SR-125 north of Otay Mesa Road would continue to operate at LOS A with the addition of 3,557 daily trips from Phases 1 and 2 of the proposed Project. As such, implementation of Phases 1 and 2 of the proposed Project would not result in a significant impact to this freeway segment.

As indicated in SEIR Table 2.7-21, the five study area on-ramps are projected to operate at an acceptable LOS with the addition of Project traffic from Phases 1 and 2. The southbound SR-905 off-ramp connecting to eastbound Siempre Viva Road is projected to operate at LOS B during the AM peak hour and LOS A during the AM peak hour with the addition of Project traffic from Phases 1 and 2. The southbound SR-905 off-ramp connecting to westbound Siempre Viva Road is projected to operate at LOS B in the AM peak hour and LOS C in the PM peak hour with the addition of Phase Project traffic from Phases 1 and 2. The SR-905 northbound on-ramp from Siempre Viva Road is projected to operate at LOS B during the AM peak hour and LOS A in the PM peak hour with the addition of Project traffic from Phases 1 and 2. The SR-125 southbound on-ramp from Otay Mesa Road is projected to operate at LOS B during the AM peak hour and LOS A during the PM peak hour with the addition of Project traffic from Phases 1 and 2. The SR-125 northbound on-ramp from Otay Mesa Road is projected to operate at LOS A during the AM peak hour and LOS D during the PM peak hour.

Existing Condition Plus Project Phases 1 through 3

As previously indicated in SEIR Table 2.7-13, implementation of Phases 1 through 3 of the proposed Project would result in the addition of 1,315 trips to the segment of SR-905 south of Siempre Viva

Road. With the addition of Project traffic to this freeway segment, the segment would continue to operate at LOS A. As such, implementation of Phases 1 through 3 of the proposed Project would not result in a significant impact to the SR-905 freeway segment located southerly of Siempre Viva Road. However, implementation of Phases 1 through 3would result in the addition of 10,520 trips to the segment of SR-905 between Otay Mesa Road and Siempre Viva Road, which would degrade the existing LOS from LOS E to LOS F. As such, implementation of Phases 1 through 3 of the proposed Project would result in a significant direct impact to the SR-905 segment located between Otay Mesa Road and Siempre Viva Road (**Significant Direct Impact TR-4**).

As depicted in SEIR Table 2.7-13, SR-125 north of Otay Mesa Road would continue to operate at LOS A with the addition of 5,260 daily trips from Phases 1 through 3 of the proposed Project. As such, implementation of Phases 1 through 3 of the proposed Project would not result in a significant impact to this freeway segment.

As indicated in SEIR Table 2.7-23, four of the five study area on-ramps are projected to operate at an acceptable LOS with the addition of Project traffic from Phases 1 through 3. The southbound SR-905 off-ramp connecting to eastbound Siempre Viva Road is projected to operate at LOS C during the AM peak hour and LOS A during the PM peak hour with the addition of Project traffic from Phases 1 through 3. The southbound SR-905 off-ramp connecting to westbound Siempre Viva Road is projected to operate at LOS B in the AM peak hour and LOS C in the PM peak hour with the addition of Phase Project traffic from Phases 1 through 3. The SR-905 northbound on-ramp from Siempre Viva Road is projected to operate at LOS B during the AM peak hour and LOS A during the PM with the addition of Project traffic from Phases 1 through 3. The southbound SR-125 ramp from Otay Mesa Road is projected to operate at LOS B during the AM peak hour and LOS A during the PM peak hour.

However, and as indicated in SEIR Table 2.7-23, with the addition of traffic from Phases 1 through 3 of the Project, the SR-125 northbound on-ramp from Otay Mesa Road would operate at a deficient LOS F during the PM peak hour. The addition of Project traffic from phases 1 through 3 of the Project would therefore result in a direct impact to this on-ramp (**Significant Direct Impact TR-20**).

Existing Condition Plus Project Phases 1 through 4 (Project Buildout)

As previously indicated in SEIR Table 2.7-15, implementation of Phases 1 through 4 of the proposed Project would result in the addition of 1,674 trips to the segment of SR-905 south of Siempre Viva Road. With the addition of Project traffic to this freeway segment, the segment would continue to operate at LOS A. As such, implementation of Phases 1 through 4 of the proposed Project would not result in a significant impact to the SR-905 freeway segment located southerly of Siempre Viva Road. However, implementation of Phases 1 through 4would result in the addition of 13,394 trips to the segment of SR-905 between Otay Mesa Road and Siempre Viva Road, which would degrade the existing LOS from LOS E to LOS F. As such, implementation of Phases 1 through 4 of the proposed Project would result in a significant direct impact to the SR-905 segment located between Otay Mesa Road and Siempre Viva Road (**Significant Direct Impact TR-4**).

As depicted in SEIR Table 2.7-15, SR-125 north of Otay Mesa Road would continue to operate at LOS A with the addition of 6,697 daily trips from Phases 1 through 4 of the proposed Project. As such, implementation of Phases 1 through 4 of the proposed Project would not result in a significant impact to this freeway segment.

As indicated in SEIR Table 2.7-25, three of the five study area on-ramps are projected to operate at an acceptable LOS with the addition of Project traffic from Phases 1 through 4. The southbound SR-905 off-ramp connecting to eastbound Siempre Viva Road is projected to operate at LOS D during the AM peak hour and LOS A during the AM peak hour with the addition of Project traffic from Phases 1 through 4. The southbound SR-905 off-ramp connecting to westbound Siempre Viva Road is projected to operate at LOS B in the AM peak hour and LOS C in the PM peak hour with the addition of Phase Project traffic from Phases 1 through 4. The SR-905 northbound on-ramp from Siempre Viva Road is projected to operate at LOS B during both peak hours with the addition of Project traffic from Phases 1 through 4.

However, and as indicated in SEIR Table 2.7-25, with the addition of traffic from Phases 1 through 4 of the Project, the SR-125 southbound off-ramp from Otay Mesa Road would operate at a deficient LOS E during the PM peak hour. In addition, with traffic from Phases 1 through 4 of the Project, the SR-125 northbound on-ramp from Otay Mesa Road would operate at a deficient LOS F during the PM peak hour. The addition of Project traffic from phases 1 through 4 of the Project would therefore result in a direct impact to these on/off-ramps (**Significant Direct Impacts TR-20** and **TR-26**).

Roadway Segments

The 2008 Congestion Management Plan (CMP) identifies the Interim SR-905 (Otay Mesa Road) segments between Heritage Road and the Interim SR-905 Connector as CMP System Roadways. The following section discusses the potential for Project-related impacts associated with each phase of the proposed development, based on the thresholds of significance identified in SEIR Table 2.7-3.

As previously noted, Interim SR-905 (Otay Mesa Road) is a unique CMP System Roadway in the sense that a majority of the traffic is associated with traffic from the Otay Mesa Port-of-Entry, which is open 24 hours a day with typically long lines crossing the border. Therefore, in addition to evaluating segments of Interim SR-905 (Otay Mesa Road) based on daily capacity (refer to the CMP thresholds of significance provided in Table 2.7-3), a separate analysis was conducted based on the Highway Capacity Manual's (HCM) Arterial Segment Methodology, using Synchro software. Since the arterial segment analysis determines level of service based on the average travel speeds that occur on the roadway, it provides a more accurate representation of the travel patterns and levels of service for Interim SR-905 (Otay Mesa Road).

Existing Condition Plus Project Phase 1

As illustrated in Table 2.7-9, all CMP System Roadways would operate at LOS D or better when Phase 1 Project traffic is added to existing traffic levels, with the exception of the Interim SR-905 (Otay Mesa Road) segments between Heritage Road and SR-125 (discussed below).

- Interim SR-905 (Otay Mesa Road) from Heritage Road to Cactus Road. In the existing condition, the six-lane segment of Interim SR-905 (Otay Mesa Road) between Heritage Road and Cactus Road is considered congested and is operating at LOS F. With the addition of 6,300 ADT from Phase 1 of the project, the v/c ratio would be increased by 0.11 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would continue to operate at LOS F. An increase in the volume-to-capacity ratio of this magnitude would exceed the standards established by SANDAG in the CMP (Table 2.7-3) and would normally be considered a significant direct impact. However, based on the arterial roadway segment

analysis (refer to Table 2.7-10), the segment of Interim SR-905 (Otay Mesa Road) between Heritage Road and Cactus Road is projected to operate at an acceptable level of service with the addition of Project traffic during peak hours. Therefore, the Project's Phase 1 contribution of ADT to Interim SR-905 (Otay Mesa Road) from Heritage Road to cactus Road would be considered less than significant because intersection delay data and operational speed data indicate that this roadway segment would operate at an acceptable LOS.

- Interim SR-905 (Otay Mesa Road) from Cactus Road to Britannia Boulevard. In the existing condition, the six-lane segments of Interim SR-905 (Otay Mesa Road) between Cactus Road and Britannia Boulevard is considered congested and is operating at LOS F under existing conditions. With the addition of 6,400 ADT from Phase 1 of the project, the v/c ratio would be increased by 0.11 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would continue to operate at LOS F. An increase in the volume-to-capacity ratio of this magnitude would exceed the standards established by SANDAG in the CMP (Table 2.7-3) and would normally be considered a significant direct impact. However, based on the arterial roadway segment analysis (refer to Table 2.7-10), the segments of Interim SR-905 (Otay Mesa Road) between Heritage Road and Britannia Boulevard are projected to operate at an acceptable level of service with the addition of Project traffic during peak hours. Therefore, the Project's Phase 1 contribution of ADT to Interim SR-905 (Otay Mesa Road) from Heritage Road to Britannia Boulevard would be considered less than significant because intersection delay data and operational speed data indicate that these CMP System Roadway segments would operate at an acceptable LOS.

- Interim SR-905 (Otay Mesa Road) from Britannia Boulevard to La Media Ranch Road. The segment of Interim SR-905 (Otay Mesa Road) between Britannia Boulevard and La Media Road operates at an unacceptable LOS E under existing conditions. With the addition of 6,600 ADT from Phase 1 of the Project, the v/c ratio would be increased by 0.11 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would degrade to LOS F. An increase in the volume-to-capacity ratio of this magnitude would exceed the standards established by SANDAG in the CMP (Table 2.7-3) and would normally be considered a significant direct impact. However, based on the arterial roadway segment analysis (refer to Table 2.7-10), the segments of Interim SR-905 (Otay Mesa Road) between Britannia Boulevard and La Media Road are projected to operate at an acceptable level of service with the addition of Project traffic. Therefore, the Project's contribution of ADT to Interim SR-905 (Otay Mesa Road) from Britannia Boulevard to La Media Road would be considered less than significant because intersection delay data and operational speed data indicate that this CMP System Roadway segment would operate at an acceptable LOS with the addition of traffic from Phase 1 of the Project.

- Interim SR-905 (Otay Mesa Road) from La Media Road to Piper Ranch Road. The segment of Interim SR-905 (Otay Mesa Road) between La Media Road and Piper Ranch Road operates at an unacceptable LOS E under existing conditions. With the addition of 6,900 ADT from Phase 1 of the Project, the v/c ratio would be increased by 0.15 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would degrade to LOS F. An increase in the volume-to-capacity ratio of this magnitude would exceed the standards established by SANDAG in the CMP (Table 2.7-3) and would normally be considered a significant direct impact. However, based on the arterial roadway segment analysis (refer to Table 2.7-10), the segment of Interim SR-905 (Otay Mesa Road) between La Media Road

and Piper Ranch Road are projected to operate at an acceptable level of service with the addition of Project traffic. Therefore, the Project's contribution of ADT to Interim SR-905 (Otay Mesa Road) from La Media Road to Piper Ranch Road would be considered less than significant because intersection delay data and operational speed data indicate that this CMP System Roadway segment would operate at an acceptable LOS with the addition of traffic from Phase 1 of the Project.

- Interim SR-905 (Otay Mesa Road) from Piper Ranch Road to SR-125. Interim SR-905 (Otay Mesa Road) from Piper Ranch Road to SR-125 is a six-lane roadway segment that operates at LOS C in the existing condition. With the addition of 7,000 ADT from Phase 1 of the project, the v/c ratio would be increased 0.12 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would degrade to LOS E. An increase in the volume-to-capacity ratio of this magnitude would exceed the standards established by SANDAG in the CMP (Table 2.7-3) and would normally be considered a significant direct impact. However, based on an analysis of operational speeds along Interim SR-905 from Cactus Road to Britannia Boulevard (presented in Table 2.7-10), this CMP System Roadway segment would operate at an acceptable LOS with traffic from Phase 1 of the Project. As such, implementation of Phase 1 of the proposed Project would result in less than significant impacts to this CMP System Roadway segment.

Existing Condition Plus Project Phases 1 and 2

As illustrated in Table 2.7-11, all CMP System Roadways would operate at LOS D or better when Project traffic from Phases 1 and 2 is added to existing traffic levels, with the exception of the Interim SR-905 (Otay Mesa Road) segments between Heritage Road and SR-125 (discussed below).

- Interim SR-905 (Otay Mesa Road) from Heritage Road to Cactus Road. In the existing condition, the six-lane segment of Interim SR-905 (Otay Mesa Road) between Heritage Road and Cactus Road is considered congested and is operating at LOS F. With the addition of 11,204 ADT from Phases 1 and 2 of the project, the v/c ratio would be increased by 0.19 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would continue to operate at LOS F. An increase in the volume-to-capacity ratio of this magnitude would exceed the standards established by SANDAG in the CMP (Table 2.7-3) and would normally be considered a significant direct impact. However, based on the arterial roadway segment analysis (refer to Table 2.7-12), the segment of Interim SR-905 (Otay Mesa Road) between Heritage Road and Cactus Road is projected to operate at an acceptable level of service with the addition of Project traffic during peak hours. Accordingly, the Project's Phase 1 and 2 contribution of ADT to Interim SR-905 (Otay Mesa Road) from Heritage Road to Cactus Road would be considered less than significant because intersection delay data and operational speed data indicate that this CMP System Roadway segment would operate at an acceptable LOS.
- Interim SR-905 (Otay Mesa Road) from Cactus Road to Britannia Boulevard. In the existing condition, the six-lane segment of Interim SR-905 (Otay Mesa Road) between Cactus Road and Britannia Boulevard is considered congested and is operating at LOS F. With the addition of 11,382 ADT from Phases 1 and 2 of the project, the v/c ratio would be increased by 0.19 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would continue to operate at LOS F. An increase in the volume-to-capacity ratio of this magnitude would exceed the standards established by SANDAG in the CMP (Table 2.7-3) and would normally be considered a significant direct impact. However, based on the arterial roadway

segment analysis (refer to Table 2.7-12), the segment of Interim SR-905 (Otay Mesa Road) between Cactus Road and Britannia Boulevard is projected to operate at an acceptable level of service with the addition of Project traffic during peak hours. Accordingly, the Project's Phase 1 and 2 contribution of ADT to Interim SR-905 (Otay Mesa Road) from Cactus Road and Britannia Boulevard would be considered less than significant because intersection delay data and operational speed data indicate that this CMP System Roadway segment would operate at an acceptable LOS.

- Interim SR-905 (Otay Mesa Road) from Britannia Boulevard to La Media Road. The segment of Interim SR-905 (Otay Mesa Road) between Britannia Boulevard and La Media Road operates at an unacceptable LOS E under existing conditions. With the addition of 11,737 ADT from Phases 1 and 2 of the project, the v/c ratio would be increased by 0.20 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would degrade to LOS F. An increase in the volume-to-capacity ratio of this magnitude would exceed the standards established by SANDAG in the CMP (Table 2.7-3) and would normally be considered a significant direct impact. However, based on the arterial roadway segment analysis (refer to Table 2.7-12), the segment of Interim SR-905 (Otay Mesa Road) between Britannia Boulevard and La Media Road is projected to operate at an acceptable level of service with the addition of Project traffic. Therefore, the Project's contribution of ADT to Interim SR-905 (Otay Mesa Road) from Britannia Boulevard to La Media Road would be considered less than significant because intersection delay data and operational speed data indicate that this CMP System Roadway segment would operate at an acceptable LOS with the addition of traffic from Phases 1 and 2 of the Project.

- Interim SR-905 (Otay Mesa Road) from La Media Road to Piper Ranch Road. The segment of Interim SR-905 (Otay Mesa Road) between La Media Road and Piper Ranch Road operates at an unacceptable LOS E under existing conditions. With the addition of 12,271 ADT from Phases 1 and 2 of the project, the v/c ratio would be increased by 0.27 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would degrade to LOS F. An increase in the volume-to-capacity ratio of this magnitude would exceed the standards established by SANDAG in the CMP (Table 2.7-3) and would normally be considered a significant direct impact. However, based on the arterial roadway segment analysis (refer to Table 2.7-12), the segment of Interim SR-905 (Otay Mesa Road) between La Media Road and Piper Ranch Road is projected to operate at an acceptable level of service with the addition of Project traffic. Therefore, the Project's contribution of ADT to Interim SR-905 (Otay Mesa Road) from La Media Road and Piper Ranch Road would be considered less than significant because intersection delay data and operational speed data indicate that this CMP System Roadway segment would operate at an acceptable LOS with the addition of traffic from Phases 1 and 2 of the Project.

- Interim SR-905 (Otay Mesa Road) from Piper Ranch Road to SR-125. Interim SR-905 (Otay Mesa Road) from Piper Ranch Road to SR-125 is a six-lane roadway segment that operates at LOS C in the existing condition. With the addition of 12,449 ADT from Phases 1 and 2 of the Project, the v/c ratio would be increased 0.21 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would degrade to LOS E. An increase in the volume-to-capacity ratio of this magnitude would exceed the standards established by SANDAG in the CMP (Table 2.7-3) and would normally be considered a significant direct impact. However, based on an analysis of operational speeds along Interim SR-905 from Piper Ranch Road to SR-125 (presented in Table 2.7-12), this segment would operate at an acceptable LOS with

traffic from Phases 1 and 2 of the Project. As such, implementation of Phases 1 and 2 of the proposed Project would result in less than significant impacts to this CMP System Roadway segment.

Existing Condition Plus Project Phases 1 through 3

As illustrated in Table 2.7-13, all CMP System Roadways would operate at LOS D or better when Project traffic from Phases 1 through 3 is added to existing traffic levels, with the exception of the Interim SR-905 (Otay Mesa Road) segments between Heritage Road and SR-125 (discussed below).

- Interim SR-905 (Otay Mesa Road) from Heritage Road to Cactus Road. In the existing condition, the six-lane segment of Interim SR-905 (Otay Mesa Road) between Heritage Road and Cactus Road is considered congested and is operating at LOS F. With the addition of 16,568 ADT from Phases 1 through 3 of the Project, the v/c ratio would be increased by 0.28 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would continue to operate at LOS F. An increase in the volume-to-capacity ratio of this magnitude would exceed the standards established by SANDAG in the CMP (Table 2.7-3) and would normally be considered a significant direct impact. Based on the arterial roadway segment analysis (refer to Table 2.7-14), the segment of Interim SR-905 (Otay Mesa Road) between Heritage Road and Cactus Road also would operate at an unacceptable LOS F during at least one direction of travel during at least one peak hour. Therefore, implementation of Phases 1 through 3 of the Project would result in a significant direct impact on the segment of Interim SR-905 (Otay Mesa Road) between Heritage Road and Cactus Road (**Significant Direct Impact TR-4)**.

- Interim SR-905 (Otay Mesa Road) from Cactus Road to Britannia Boulevard. In the existing condition, the six-lane segment of Interim SR-905 (Otay Mesa Road) between Cactus Road and Britannia Boulevard is considered congested and is operating at LOS F. With the addition of 16,831 ADT from Phases 1 through 3 of the Project, the v/c ratio would be increased by 0.29 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would continue to operate at LOS F. An increase in the volume-to-capacity ratio of this magnitude would exceed the standards established by SANDAG in the CMP (Table 2.7-3) and would normally be considered a significant direct impact. Based on the arterial roadway segment analysis (refer to Table 2.7-14), the segment of Interim SR-905 (Otay Mesa Road) between Cactus Road and Britannia Boulevard also would operate at an unacceptable LOS F during at least one direction of travel during at least one peak hour. Therefore, implementation of Phases 1 through 3 of the Project would result in a significant direct impact on the segment of Interim SR-905 (Otay Mesa Road) between Cactus Road and Britannia Boulevard (**Significant Direct Impact TR-5)**.

- Interim SR-905 (Otay Mesa Road) from Britannia Boulevard to La Media Road. The segments of Interim SR-905 (Otay Mesa Road) between Britannia Boulevard and La Media Road operates at an unacceptable LOS E under existing conditions. With the addition of 17,357 ADT from Phases 1 through 3 of the project, the v/c ratio would be increased by 0.29 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would degrade to LOS F. An increase in the volume-to-capacity ratio of this magnitude would exceed the standards established by SANDAG in the CMP (Table 2.7-3) and would normally be considered a significant direct impact. However, based on the arterial roadway segment analysis (refer to Table 2.7-14), the segment of Interim SR-905 (Otay Mesa Road) between Britannia Boulevard and La Media Road is projected to operate at an acceptable level of

service with the addition of Project traffic. Therefore, the Project's contribution of ADT to Interim SR-905 (Otay Mesa Road) from Britannia Boulevard to La Media Road would be considered less than significant because operational speed data indicate that this roadway segment would operate at an acceptable LOS with the addition of traffic from Phases 1 through 3 of the Project.

- Interim SR-905 (Otay Mesa Road) from La Media Road to Piper Ranch Road. The segments of Interim SR-905 (Otay Mesa Road) between La Media Road and Piper Ranch Road operates at an unacceptable LOS E under existing conditions. With the addition of 18,146 ADT from Phases 1 through 3 of the project, the v/c ratio would be increased by 0.40 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would degrade to LOS F. An increase in the volume-to-capacity ratio of this magnitude would exceed the standards established by SANDAG in the CMP (Table 2.7-3) and would normally be considered a significant direct impact. Based on the arterial roadway segment analysis (refer to Table 2.7-14), the segment of Interim SR-905 (Otay Mesa Road) between La Media Road and Piper Ranch Road is projected to operate at an acceptable LOS during both peak hours. Additionally, both the Otay Mesa Road/La Media Road and Otay Mesa Road/Piper Ranch Road intersections operate at acceptable levels of service during the AM and PM peak hours. Therefore, implementation of Phases 1 through 3 of the Project would result in a less than significant impact on the CMP System Roadway segment of Interim SR-905 (Otay Mesa Road) between La Media Road and Piper Ranch Road because intersection delay data and operational speed data indicate that this roadway segment would operate at an acceptable LOS with the addition of traffic from Phases 1 through 3 of the Project.

- Interim SR-905 (Otay Mesa Road) from Piper Ranch Road to SR-125. Interim SR-905 (Otay Mesa Road) from Piper Ranch Road to SR-125 is a six-lane roadway segment that operates at LOS C in the existing condition. With the addition of 18,409 ADT from Phases 1 through 3 of the Project, the v/c ratio would be increased 0.32 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would degrade to LOS F. An increase in the volume-to-capacity ratio of this magnitude would exceed the standards established by SANDAG in the CMP (Table 2.7-3) and would normally be considered a significant direct impact. However, based on the arterial roadway segment analysis (refer to Table 2.7-14), this segment would operate at an acceptable LOS with traffic from Phases 1 through 3 of the Project. As such, implementation of Phases 1 through 3 of the proposed Project would result in less than significant impacts to this CMP System Roadway segment.

Existing Condition Plus Project Phases 1 through 4

As illustrated in Table 2.7-15, all CMP System Roadways would operate at LOS D or better when Project traffic from Phases 1 through 4 is added to existing traffic levels, with the exception of the Interim SR-905 (Otay Mesa Road) segments between Heritage Road and SR-125 (discussed below).

- Interim SR-905 (Otay Mesa Road) from Heritage Road to Cactus Road. In the existing condition, the six-lane segment of Interim SR-905 (Otay Mesa Road) between Heritage Road and Cactus Road is considered congested and is operating at LOS F. With the addition of 21,096 ADT from Phases 1 through 4 of the Project, the v/c ratio would be increased by 0.35 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would continue to operate at LOS F. An increase in the volume-to-capacity ratio of this magnitude would exceed the standards established by SANDAG in the CMP (Table 2.7-3) and would normally be considered a significant direct impact. Based on the arterial roadway segment analysis

(refer to Table 2.7-16), the segment of Interim SR-905 (Otay Mesa Road) between Heritage Road and Cactus Road also would operate at an unacceptable LOS F during at least one direction of travel during at least one peak hour. Therefore, implementation of Phases 1 through 4 of the Project would result in a significant direct impact on the CMP System Roadway segments of Interim SR-905 (Otay Mesa Road) between Heritage Road and Cactus Road (**Significant Direct Impact TR-4)**.

- Interim SR-905 (Otay Mesa Road) from Cactus Road to Britannia Boulevard. In the existing condition, the six-lane segment of Interim SR-905 (Otay Mesa Road) between Cactus Road and Britannia Boulevard is considered congested and is operating at LOS F. With the addition of 21,431 ADT from Phases 1 through 4 of the Project, the v/c ratio would be increased by 0.36 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would continue to operate at LOS F. An increase in the volume-to-capacity ratio of this magnitude would exceed the standards established by SANDAG in the CMP (Table 2.7-3) and would normally be considered a significant direct impact. Based on the arterial roadway segment analysis (refer to Table 2.7-16), the segment of Interim SR-905 (Otay Mesa Road) between Cactus Road and Britannia Boulevard also would operate at an unacceptable LOS F during at least one direction of travel during at least one peak hour. Therefore, implementation of Phases 1 through 4 of the Project would result in a significant direct impact on the CMP System Roadway segments of Interim SR-905 (Otay Mesa Road) between Cactus Road and Britannia Boulevard (**Significant Direct Impact TR-5)**.

- Interim SR-905 (Otay Mesa Road) from Britannia Boulevard to La Media Road. The segment of Interim SR-905 (Otay Mesa Road) between Britannia Boulevard and La Media Road operates at an unacceptable LOS E under existing conditions. With the addition of 22,101 ADT from Phases 1 through 4 of the Project, the v/c ratio would be increased by 0.37 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would degrade to LOS F. An increase in the volume-to-capacity ratio of this magnitude would exceed the standards established by SANDAG in the CMP (Table 2.7-3) and would normally be considered a significant direct impact. Based on the arterial roadway segment analysis (refer to Table 2.7-16), the segment of Interim SR-905 (Otay Mesa Road) between Britannia Boulevard and La Media Road also is projected to operate at an unacceptable LOS E during at least one direction of travel during at least one peak hour. Therefore, even based on peak hour levels of operation, implementation of Phases 1 through 4 of the Project would result in a significant direct impact on the CMP System Roadway segment of Interim SR-905 (Otay Mesa Road) between Britannia Boulevard and La Media Road (**Significant Direct Impact TR-11**).

- Interim SR-905 (Otay Mesa Road) from La Media Road to Piper Ranch Road. The segment of Interim SR-905 (Otay Mesa Road) between La Media Road and Piper Ranch Road operates at an unacceptable LOS E under existing conditions. With the addition of 23,105 ADT from Phases 1 through 4 of the Project, the v/c ratio would be increased by 0.51 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would degrade to LOS F. An increase in the volume-to-capacity ratio of this magnitude would exceed the standards established by SANDAG in the CMP (Table 2.7-3) and would normally be considered a significant direct impact. Based on the arterial roadway segment analysis (refer to Table 2.7-16), the segment of Interim SR-905 (Otay Mesa Road) between La Media Road and Piper Ranch Road is projected to operate at an unacceptable LOS F during at least one direction of travel during at least one peak hour. Therefore, even based on peak hour levels of operation,

implementation of Phases 1 through 4 of the Project would result in a significant direct impact on the CMP System Roadway segment of Interim SR-905 (Otay Mesa Road) between La Media Road and Piper Ranch Road (**Significant Direct Impact TR-1**).

- Interim SR-905 (Otay Mesa Road) from Piper Ranch Road to SR-125. Interim SR-905 (Otay Mesa Road) from Piper Ranch Road to SR-125 is a six-lane roadway segment that operates at LOS C in the existing condition. With the addition of 23,440 ADT from Phases 1 through 4 of the Project, the v/c ratio would be increased 0.41 and the level of service on this segment of Interim SR-905 (Otay Mesa Road) would degrade to LOS F. An increase in the volume-to-capacity ratio of this magnitude would exceed the standards established by SANDAG in the CMP (Table 2.7-3) and would normally be considered a significant direct impact. Even based on the arterial roadway segment analysis (refer to Table 2.7-16), the segment of Interim SR-905 (Otay Mesa Road) between Piper Ranch Road and the SR-125 would operate at an unacceptable LOS F during at least one direction of travel during at least one peak hour. Therefore, even based on peak hour levels of operation, implementation of Phases 1 through 4 of the Project would result in a significant direct impact on the CMP System Roadway segment of Interim SR-905 (Otay Mesa Road) between Piper Ranch Road and SR-125 (**Significant Direct Impact TR-12**).

Signalized Intersections

Existing Condition Plus Project Phase 1

Table 2.7-19 presents the resulting peak hour LOS and duration of delay at study area signalized intersections for the existing plus Project Phase 1 conditions. As shown in the table, all study area signalized intersections would either operate at an acceptable LOS with the addition of traffic from Phase 1 of the proposed Project, or are not considered to be CMP System intersections because they are unsignalized or do not include any CMP System Roadways. For a discussion of Project impacts to non-CMP intersections, please refer to the analysis provided in SEIR Section 2.7.2.3.

Existing Condition Plus Project Phases 1 and 2

Table 2.7-21 presents the resulting peak hour LOS and duration of delay at study area signalized intersections for the existing plus Project Phases 1 and 2 conditions. As shown in the table, all study area CMP signalized intersections would operate at LOS D or better during the AM and PM peak hours following implementation of Phases 1 and 2 of the Project, with the exception of the intersection of the Otay Mesa Road/Interim SR-905 Connector intersection.

- Otay Mesa Road/Interim SR-905 Connector. This intersection operates at LOS B during the AM peak hour and LOS C during the PM peak hour under existing conditions. With the addition of 1,751 PM peak hour trips from Phases 1-2 of the Project, the PM peak hour delay would be increased by 89.1 seconds degrading the existing LOS to LOS F. Per the CMP thresholds of significance for signalized intersections (refer to SEIR Table 2.7-3), Phases 1 and 2 of the proposed Project would result in a significant direct impact at the Otay Mesa Road/Interim SR-905 Connector intersection (**Significant Direct Impact TR-14**).

All other intersections shown in Table 2.7-21 either operate at an acceptable LOS with the addition of traffic from Phases 1 and 2 of the proposed Project, or are not considered to be CMP System intersections because they are unsignalized or do not include any CMP System Roadways. For a

discussion of Project impacts to non-CMP intersections, please refer to the analysis provided in SEIR Section 2.7.2.3.

Existing Condition Plus Project Phases 1 through 3

Table 2.7-23 presents the resulting peak hour LOS and duration of delay at study area signalized intersections for the existing plus Project Phases 1 through 3 conditions. As shown in the table, all study area signalized intersections would operate at LOS D or better during the AM and PM peak hours following implementation of Phases 1 through 3 of the Project, with the exception of the following intersections: Otay Mesa Road at Heritage Road; Otay Mesa Road at Cactus Road; Otay Mesa Road at SR-125 northbound ramp; and Otay Mesa Road at the Interim SR-905 Connector. Each of these intersections is discussed below.

- Interim SR-905 (Otay Mesa Road)/Heritage Road. This intersection operates at LOS C during both the AM and PM peak hours under existing conditions. With the addition of 1,956 AM peak hour trips and 1,956 PM peak hour trips from Phases 1 through 3 of the Project the AM peak hour delay would be increased by 70.1 seconds and the PM peak hour delay would be increased by 48.6 seconds, which would degrade the AM peak hour LOS to LOS F and would degrade the PM peak hour LOS to LOS E. Per the CMP thresholds of significance for signalized intersections (refer to SEIR Table 2.7-3), Phases 1 through 3 of the proposed Project would result in a significant direct impact at the intersection of Interim SR-905 (Otay Mesa Road)/Heritage Road intersection (**Significant Direct Impact TR-18**).

- Interim SR-905 (Otay Mesa Road)/Cactus Road. This intersection operates at LOS A during the AM peak hour and LOS B during the PM peak hour under existing conditions. With the addition of 2,020 AM peak hour trips from Phases 1 through 3 of the Project the AM peak hour delay would be increased by 72.5 seconds which would degrade the AM peak hour LOS to LOS F Per the CMP thresholds of significance for signalized intersections (refer to SEIR Table 2.7-3), implementation of Phases 1 through 3 of Project would result in a significant direct impact on the Interim SR-905 (Otay Mesa Road)/Cactus Road intersection (**Significant Direct Impact TR-19**).

- Interim SR-905 (Otay Mesa Road)/SR-125 Northbound Ramp. This intersection operates at LOS A during both peak hours under existing conditions. With the addition of 2,589 PM peak hour trips from Phases 1 through 3 of the Project, the PM peak hour delay would be increased by 124.2 seconds which would degrade the PM peak hour LOS to LOS F. Per the CMP thresholds of significance for signalized intersections (refer to SEIR Table 2.7-3), implementation of Phases 1 through 3 of the proposed Project would result in a significant direct impact at the Otay Mesa Road/SR-125 Northbound Ramp intersection (**Significant Direct Impact TR-20**).

- Otay Mesa Road/Interim SR-905 Connector. This intersection operates at LOS B during the AM peak hour and LOS C during the PM peak hour under existing conditions. With the addition of 1,831 AM peak hour trips from Phases 1 through 3 of the Project, the AM peak hour delay would be increased by 73.9 seconds which would degrade the existing LOS to LOS F. With the addition of 2,589 PM peak hour trips from Phases 1 through 3 of the Project, the PM peak hour delay would be increased by 217.8 seconds which would the existing LOS to LOS F. Per the CMP thresholds of significance for signalized intersections (refer to SEIR Table 2.7-3), implementation of Phases 1 through 3 of the proposed Project

would result in a significant direct impact at the Otay Mesa Road/Interim SR-905 Connector intersection (**Significant Direct Impact TR-14**).

All other intersections shown in Table 2.7-23 either operate at an acceptable LOS with the addition of traffic from Phases 1 through 3 of the proposed Project, or are not considered to be CMP System intersections because they are unsignalized or do not include any CMP System Roadways. For a discussion of Project impacts to non-CMP intersections, please refer to the analysis provided in SEIR Section 2.7.2.3.

Existing Condition Plus Project Phases 1 through 4

Table 2.7-25 presents the resulting peak hour LOS and duration of delay at study area signalized intersections for the existing plus Project Phases 1 through 4 conditions. As shown in the table, all study area signalized intersections would operate at LOS D or better during the AM and PM peak hours following implementation of Phases 1 through 4 of the Project, with the exception of the following intersections: Otay Mesa Road at Heritage Road; Otay Mesa Road at Cactus Road; Otay Mesa Road at Britannia Boulevard; Otay Mesa Road at La Media Road; Otay Mesa Road at Piper Ranch Road; Otay Mesa Road at SR-125 southbound ramp; Otay Mesa Road at SR-125 northbound ramp; and Otay Mesa Road at the Interim SR-905 Connector. Each of these intersections is discussed below.

- Interim SR-905 (Otay Mesa Road)/Heritage Road. This intersection operates at LOS C during both the AM and PM peak hours under existing conditions. With the addition of 2,491 AM peak hour trips and 2,491 PM peak hour trips from Phases 1 through 4 of the Project, the AM peak hour delay would be increased by 111.3 seconds and the PM peak hour delay would be increased by 83.7 seconds degrading the AM and PM peak hour LOS to LOS F. Per the CMP thresholds of significance for signalized intersections (refer to SEIR Table 2.7-3), implementation of Phases 1-4 of the proposed Project would result in a significant direct impact on the Interim SR-905 (Otay Mesa Road)/Heritage Road intersection. (**Significant Direct Impact TR-18**).
- Interim SR-905 (Otay Mesa Road)/Cactus Road. This intersection operates at LOS A during the AM peak hour and LOS B during the PM peak hour under existing conditions. With the addition of 2,571 AM peak hour trips from Phases 1 through 4 of the Project the AM peak hour delay would be increased by 115.8 seconds which would degrade the AM peak hour LOS to LOS F. Per the CMP thresholds of significance for signalized intersections (refer to SEIR Table 2.7-3), implementation of Phases 1 through 4 of Project would result in a significant direct impact on the Interim SR-905 (Otay Mesa Road)/Cactus Road intersection (**Significant Direct Impact TR-19**).
- Interim SR-905 (Otay Mesa Road)/Britannia Boulevard. This intersection operates at LOS A during the AM peak hour and LOS B during the PM peak hour under existing conditions. With the addition of 2,652 AM peak hour trips and 2,652 PM peak hour trips from Phases 1 through 4 of the Project the AM peak hour delay would be increased by 68.1 seconds and the PM peak hour delay would be increased by 55.0 seconds, which would degrade the AM peak hour LOS to LOS F and the PM peak hour LOS to LOS E. Per the CMP thresholds of significance for signalized intersections (refer to SEIR Table 2.7-3), implementation of Phases 1 through 4 of Project would result in a significant direct impact on the Interim SR-905 (Otay Mesa Road)/Britannia Boulevard intersection (**Significant Direct Impact TR-23**).

- Interim SR-905 (Otay Mesa Road)/La Media Road. This intersection, located in the City of San Diego, operates at LOS C during both peak hours under existing conditions. With the addition of 2,772 AM peak hour trips and 2,772 PM peak hour trips from Phases 1 through 4 of the Project, the PM peak hour delay would be increased by 68.0 seconds, which would degrade the PM peak hour LOS to LOS E. Per the CMP thresholds of significance for signalized intersections (refer to SEIR Table 2.7-3), implementation of Phases 1 through 4 of Project would result in a significant direct impact on the Interim SR-905 (Otay Mesa Road)/La Media Road intersection. (**Significant Direct Impact TR-24**).
- Interim SR-905 (Otay Mesa Road)/Piper Ranch Road. This intersection operates at LOS A during both peak hours under existing conditions. With the addition of 2,812 AM peak hour trips from Phases 1 through 4 of the Project, the AM peak hour delay would be increased by 83.9 seconds and would degrade the AM peak hour LOS to LOS F. Per the CMP thresholds of significance for signalized intersections (refer to SEIR Table 2.7-3), implementation of Phases 1 through 4 of Project would result in a significant direct impact on the Interim SR-905 (Otay Mesa Road)/Piper Ranch Road intersection (**Significant Direct Impact TR-25**).
- Interim SR-905 (Otay Mesa Road)/SR-125 Southbound Ramp. This intersection operates at LOS B during the AM peak hour and LOS A during the PM peak hour under existing conditions. With the addition of 2,974 PM peak hour trips from Phases 1 through 4 of the Project, the PM peak hour delay would be increased by 62.7 seconds degrading the PM peak hour LOS to LOS E. Per the CMP thresholds of significance for signalized intersections (refer to SEIR Table 2.7-3), implementation of Phases 1 through 4 of the proposed Project would result in a significant direct impact at the Otay Mesa Road/SR-125 Southbound Ramp intersection. (**Significant Direct Impact TR-26**).
- Interim SR-905 (Otay Mesa Road)/SR-125 Northbound Ramp. This intersection operates at LOS A during both peak hours under existing conditions. With the addition of 3,296 PM peak hour trips from Phases 1 through 4 of the Project, the PM peak hour delay would be increased by 209.1 seconds degrading the PM peak hour LOS to LOS F. Per the CMP thresholds of significance for signalized intersections (refer to SEIR Table 2.7-3), implementation of Phases 1 through 4 of the proposed Project would result in a significant direct impact at the Otay Mesa Road/SR-125 Northbound Ramp intersection. (**Significant Direct Impact TR-20**).
- Otay Mesa Road/Interim SR-905 Connector. This intersection operates at LOS B during the AM peak hour and LOS C during the PM peak hour under existing conditions. With the addition of 2,331 AM peak hour trips and 3,296 PM peak hour trips from Phases 1 through 4 of the Project, the AM peak hour delay would be increased by 129.3 seconds and the PM peak hour delay would be increased by 347.6 seconds, which would degrade the existing AM and PM LOS to LOS F. Per the CMP thresholds of significance for signalized intersections (refer to SEIR Table 2.7-3), implementation of Phases 1 through 4 of the proposed Project would result in a significant direct impact at the Otay Mesa Road/Interim SR-905 Connector intersection (**Significant Direct Impact TR-14**).

All other intersections shown in Table 2.7-25 either operate at an acceptable LOS with the addition of traffic from Phases 1 through 4 of the proposed Project, or are not considered to be CMP System intersections because they are unsignalized or do not include any CMP System Roadways. For a discussion of Project impacts to non-CMP intersections, please refer to the analysis provided in SEIR Section 2.7.2.3.

2.7.2.5 Hazards Due to an Existing Transportation Design Feature

Guidelines for the Determination of Significance

The Project would have a significant adverse effect on transportation and traffic if the following would occur as a result of a Project-related component:

(7) The Project would substantially increase traffic volumes along a roadway segment or intersection which may cause a significant traffic operational impact due to an existing substandard transportation design feature.

Threshold 7 is studied in this SEIR to evaluate potential hazards as a result of a design feature. Although on-site, new roads would be constructed to San Diego County Public and Private Road Standards, the design of existing roadways and intersections may pose an increased risk if traffic volumes substantially increase along the road segment or at the intersection as a result of the proposed Project. Increased traffic generated or redistributed by a proposed project may cause a significant traffic operational impact to an existing transportation design feature.

Analysis

In the existing condition, there are several unimproved, substandard roadways in the vicinity of the Project site; including portions of Alta Road, Airway Road, and Siempre Viva Road. Each of these County General Plan Circulation Element roadways would be relied upon to provide direct access to the Project site. To minimize Project-related impacts to local roadways, the Project would improve Alta Road along the site's frontage, as well off-site portions of Airway Road and Siempre Viva Road. All on- and off-site roadway improvements proposed by the Project would be designed and constructed in accordance with the County's Public Road standards in order to accommodate project traffic flows and preclude transportation hazards. In addition, mitigation provided in Section 2.7.5 would reduce direct and cumulative Project impacts to study area roadways to below a level of significance. The improvements proposed as part of the Project, in conjunction with the mitigation provided in Section 2.7.5, would ensure that a significant traffic operational impact due to an existing substandard design feature would not occur.

2.7.2.6 Hazards to Pedestrians or Bicyclists

Guidelines for the Determination of Significance

The Project would have a significant adverse effect on transportation and traffic if the following would occur as a result of a Project-related component:

(8) The proposed Project would result in increased traffic or redistributed traffic that may cause a significant traffic operational impact to pedestrian or bicyclists.

Threshold 8 is evaluated in this EIR to determine if there would be any potential hazards to pedestrians and/or bicyclists. Many roadways and intersections in the County do not have pedestrian or bicycle facilities. These roadways and intersections may pose an increased risk if traffic volumes, pedestrian volumes, or bicycle volumes substantially increase along the road segment or an intersection as a result of the proposed Project. Increased traffic generated or redistributed by the proposed Project may cause a significant operational impact to pedestrians or bicyclists.

Analysis

Due to the existing and proposed industrial- and commercial-dominated development patterns of East Otay Mesa, it is unlikely that implementation of the Project would result in a significant increase in pedestrian or bicycle traffic. As noted in the EOMSP, "It is likely that the vast majority of workers within East Otay Mesa will be traveling from areas outside of the Mesa, such as Otay Ranch, portions of the City of San Diego, and Chula Vista, and possibly from the international border crossing" (page 50). In order to accommodate bicycle traffic, the EOMSP notes its prohibition of on-street parking for area roadways. As noted in the EOMSP, "The absence of parked trucks and cars on the roads on the Mesa together with wide curb lanes will allow the bicyclist to use the roads as a Class III shared facility for bicycle travel" (page 51). The only facilities within the EOMSP area designated for a Class I (or separated) bicycle facility occur along the alignments for the future SR-905 Freeway Extension Corridor and the SR-125 Tollway. Likewise, for pedestrian traffic, the EOMSP indicates that pedestrian traffic is anticipated primarily in close proximity to support commercial uses, while the Project site is not located near any existing or proposed commercial uses.

As part of the proposed Project, and in conformance with the EOMSP, improvements are proposed to on- and off-site County Circulation Element Roadways (*i.e.*, Alta Road, Airway Road, and Siempre Viva Road) as well as on-site non-Circulation Element roadways. These roadways would be constructed in conformance with the EOMSP standards, including the provision of wide shoulders (between eight- and ten-feet in width) to accommodate bicycle traffic, as well as appropriate striping and signage for bicycle lanes in a manner consistent with the County of San Diego Public Road Standards in effect at the time of application for such improvements. In addition, all roadway improvements would include a six-foot curb-adjacent sidewalk (on one side of the street for roadways constructed at half-width improvements, on both sides of the street for roadways constructed at full-width improvements) to facilitate pedestrian circulation through the Project site and to surrounding areas. As such, improvements proposed by the Project would be consistent with the Bicycle Routes and Facilities described in the EOMSP, and a significant operational impact to pedestrians and bicycles would not occur.

For impacts to roadway segments outside of the immediate Project area, mitigation has been provided in Section 2.7.5 to reduce direct and cumulative Project impacts to study area roadways to a level below significance, which would ensure that vehicular traffic does not become congested and result in hazards to pedestrians and bicyclists along study area roadways. The improvements proposed as part of the Project in association with mitigation provided in Section 2.7.5 would ensure that no significant traffic operational impacts to pedestrians and bicyclists would occur due to increased traffic volumes.

Although the proposed Project would generate substantial traffic volumes, improvements proposed as part of the Project, along with mitigation measures to address deficient levels of service for off-site roadways, would ensure that substantial congestion does not occur to study area roadways. By ensuring that improvements are in place to preclude such congestion, roadways segments within the study area would help to ensure that operational impacts to pedestrians and bicycles are maintained at less than significant levels. Moreover, improvements required by the Project would include the installation of traffic signals and cross-walks (as more fully described in SEIR Section 2.7.5.2), which would enhance pedestrian and bicycle safety in the area. Thus, implementation of the Project would not result in a significant safety hazard to pedestrians or bicyclists.

2.7.2.7 Parking Capacity

Guidelines for the Determination of Significance

The Project would have a significant adverse effect on transportation and traffic if the following would occur as a result of a Project-related component:

(9) The proposed Project cannot demonstrate compliance with the standards set forth by the County of San Diego Zoning Ordinance (Sections 6750-6799) and the County of San Diego Off-Street Parking Design Manual.

Threshold 9 was included for evaluation to determine potential impacts associated with vehicle parking. Typical adverse effects can occur when an adequate number of spaces are not incorporated in a project design. The County's Zoning regulations are intended to require adequate off-street parking and loading, thereby reducing traffic congestion, allowing more efficient utilization of on-street parking, promoting more efficient loading operations, and reducing the use of public streets for loading purposes. Additionally, the regulations are intended to minimize the secondary effects of vehicles. These may include vehicular noise or visual impacts from headlights and unscreened parked vehicles. Unscreened parked vehicles are a particular concern when parking adjoins or is adjacent to residential areas or preserve systems that are sensitive to noise and lighting.

Analysis

The ultimate number of parking spaces to be developed on-site is unknown at this time; however, no deviations from County parking requirements or standards have been requested. Future development of the Project site would be required to comply with all applicable parking standards set forth by the EOMSP Zoning Standards (Section 3.36) [which is consistent with the County of San Diego Zoning Ordinance (Sections 6750-6799)] and the County of San Diego Off-Street Parking Design Manual. These requirements would be enforced as part of the review of future development applications for the site by the County DPLU. Thus, ultimate development of the site would be consistent with the applicable provisions of the County Zoning Ordinance, and impacts related to parking would be considered less than significant.

2.7.2.8 Alternative Transportation

Guidelines for the Determination of Significance

The Project would have a significant adverse effect on transportation and traffic if the following would occur as a result of a Project-related component:

(10) The proposed Project would conflict with the adopted policies, plans or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks) set forth by the County of San Diego General Plan (Public Facilities Element Policies 4.1-4.4).

Threshold 10 was included to evaluate consistency with alternative transportation policies established in the County General Plan Public Facilities Element. The County General Plan Public Facilities establishes alternative transportation policies in order to reduce roadway congestion and pollution. A significant impact would occur if the Project was inconsistent with the alternative transportation policies established in the County General Plan, or precluded implementation of the alternative transportation policies listed in the County General Plan.

Analysis

The Project proposes to subdivide the property into business park lots; no specific uses or structures are proposed at this time. Improvements proposed as part of the Project would be consistent with the County General Plan and the EOMSP. The County's General Plan Public Facilities Element includes several policies supporting alternative transportation, and the proposed Project would be consistent with these policies as follows:

- Policy 4.1: The use of alternate forms of transportation such as public transit and car/van pools will be supported and encouraged to reduce both roadway congestion and pollution.

  Project Consistency: There are no public transit or car/van pools planned for the Project area. Such facilities are planned pursuant to the EOMSP to occur adjacent the SR-125 and SR-905, and Project implementation would not preclude the construction of these facilities.

- Policy 4.2: The County will ensure the development of its bikeway system and encourage its use.

  Project Consistency: The Project site is not identified as a linkage in the EOMSP bicycle routes and facilities, although Project roadways would accommodate bicycle traffic.

- Policy 4.3: Consider the need for transit improvements in Large Scale Projects.

  Project Consistency: The Project is located within the EOMSP, which indicates that the County will encourage the location of alterative modes of transit along Otay Mesa Road, adjacent to SR-125, and along SR-125. The Project would accommodate access between the site to these facilities as part of planned improvements to Alta Road, Airway Road, and Siempre Viva Road.

- Ensure the provision of bicycle facilities and other needed bikeway related improvements in new development.

  Project Consistency: As part of proposed roadway improvements to Airway Road, Siempre Viva Road, and Alta Road, appropriate signage and striping would be provided for bicycle lanes in a manner consistent with the EOMSP and the County of San Diego Public Road Standards in effect at the time of application for such improvements.

As noted previously in this section, the EOMSP encourages the provision of alternative transportation corridors to be concentrated near SR-125, SR-905, and Otay Mesa Road. The EOMSP also encourages the provision of connections between the site and designated alternative transportation corridors, which the Project would accomplish with planned improvements to Alta Road, Siempre Viva Road, and Airway Road. In addition, these roadways would be constructed to accommodate bicycle traffic, and would feature wide shoulders to facilitate safe bicycle travel, as well as appropriate striping and signage for bicycle lanes in a manner consistent with the County of San Diego Public Road Standards.

Accordingly, implementation of the Project would not conflict with adopted policies, plans, or programs supporting alternative transportation, and impacts would be considered less than significant.

2.7.2.9 Impacts During Construction

Each phase of the proposed Project would require construction activities that have the potential to disrupt traffic on study area roadways. Traffic generated during construction activities largely would involve construction worker trips to and from the site, delivery trucks bringing building materials, and heavy construction equipment being moved on or off-site. Mass grading of the Project site would occur with the first phase of the proposed Project, and would not require any import or export of dirt to or from the site.

Under existing conditions, there are no existing developments abutting the proposed Project site, and the site is not served by any improved roadways. Therefore, implementation of Phase 1 of the proposed Project would not result in substantial disruptions to the flow of traffic on any nearby roadway segment. However, each phase of the proposed Project would require a number of off-site improvements to existing roadways and intersections. These improvements have the potential to result in substantial disruptions to traffic patterns in eastern Otay Mesa. This is evaluated as a near-term direct impact of the proposed Project (**Significant Direct Impact TR-30**).

2.7.3 Cumulative Impact Analysis

2.7.3.1 Cumulative Impacts Identified by the EOMSP Final EIR

The EOMSP Final EIR (1994) identified short- and long-term cumulative impacts to transportation and traffic. However, since certification of the EOMSP Final EIR, a number of changes in the surrounding circumstances have occurred, such as revisions to allowable land uses, changes to the circulation network, and the implementation of a number of land uses throughout East Otay Mesa. In addition, a detailed evaluation of cumulative impacts was not provided due to a lack of detail about future land uses in the area. As such, the following section provides an updated analysis of cumulatively considerable impacts to transportation/traffic based on updated information about past, present, and future land uses within the Project's study area.

2.7.3.2 Project-Specific Cumulative Impact Analysis

In order to assess the cumulative effect of the Project's impacts to traffic and transportation, a study area was defined. The traffic study area for the Project was established with direction from the County Department of Public Works (DPW). Based on discussions with DPW, it was determined that the impacts of cumulative development, caused by placing all cumulative trips on the network at one time exceeded the rate of the real estate market to potentially absorb developed industrial land. The County's decision was based on a review of the December 15, 2006 Addendum to Real Estate Market Analysis, which was prepared by Economics Research Associates (ERA) for the City of San Diego during the preparation of the Otay Mesa Community Plan. The percentage of development that could be expected by the year 2020 was estimated by taking the total industrial acreage forecast for the unincorporated County portion of the East Otay Mesa area between 2006 and 2020, based on the high scenario growth rate (or 135 acres), divided by the total acreage of industrial subdivisions proposed in the County (or 1,068 acres).

In the unincorporated County of San Diego, there are seventeen (17) cumulative projects, including many large-scale subdivisions and the proposed project, which are located in the Otay Mesa Specific Plan Area. The methodology used to apply the ERA market analysis was as follows:

- Traffic generated by projects processed as Major Use Permits, Interim Use Permits, and Site Plans would be applied at 100% of their planned development capacity by the year 2020. Nine (9) of the seventeen (17) approved/pending projects met that criteria and marketing assumptions in the ERA analysis and were applied to this group of projects.

- Traffic generated by projects processed as subdivisions (Tentative Maps, Tentative Parcel Maps) would be applied at a reduced percentage of the planned development capacity by the year 2020. The reduced percentage was based on market absorption data in the ERA market study. This group included the remaining eight (8) approved/pending projects. The County estimated that these eight (8) projects, based on the market absorption factors described above, could reasonably develop a calculated percentage of the total acreage available for future development. This percentage was determined to be approximately 13% of their total development capacity by the year 2020. Thus the cumulative traffic volumes attributed to these large subdivisions was factored at 13% of total traffic volumes.

This methodology presents a more reasonable approach to cumulative traffic analysis by recognizing the real-estate/market-absorption factors that influence the rate at which industrial land is subdivided and made fully operational by development and therefore the cumulative traffic impacts realized. This methodology also takes into consideration the fact that developers must process a second permit, called a Site Plan, before development can occur within subdivisions located in the East Otay Mesa Specific Plan Area. The County will monitor market trends and the level of development in the East Otay Mesa area to ensure that the assumptions utilized above remain valid and reasonable. In addition, the cumulative project list will be updated, as appropriate, when Site Plans are submitted to the County. Traffic generated by projects with Site Plans would then be applied at 100%.

Table 2.7-28, *List of Approved and Pending Projects Daily Trip Generation*, summarizes the list of approved/pending projects and identifies which ones were assumed by the County of San Diego to be developed at 100% or 13% of its planned development by the year 2020. Figure 2.7-27, *Cumulative Study Area – Transportation/Traffic*, illustrates the location of the approved/pending projects in the Otay Mesa area of the County of San Diego. As shown in Table 2.7-28, the approved/pending projects within the County of San Diego are estimated to generate a total of approximately 155,932 average daily trips, of which, approximately 52,045 ADT are anticipated to be added to the roadway network by the year 2020.

Road Segments and Intersections

Cumulative Condition (Year 2020) Plus Project With SR-905 Roadway Conditions

Study Area Improvements and Roadway Conditions

Three of the approved/pending projects listed in Table 2.7-28 require the construction of new roadway facilities and/or modifications of existing intersections in order to provide access. These projects include the following: (1) International Industrial Park, TM 5549 (2) Otay Business Park, TM 5505; and (3) Otay Crossings Commerce Park, TM 5405. Thus, in order to include the traffic generated by these projects in the cumulative analysis some assumptions have to be made as to how the traffic associated with each of these projects would get to/from the existing roadway network. Figure 2.7-28, *Anticipated Connections to Existing Circulation System for Cumulative Projects,* provides an illustration of the assumed points of access for each of these projects.

Each project's traffic will be assigned to the network presented on Figure 2.7-28. As each project is processed it will identify the facilities needed to accommodate its development and pay the County's Traffic Impact Fees (TIF) to mitigate cumulative impacts. It should be noted, that as illustrated in Figure 2.7-28, the extension of Airway Road and Siempre Viva Road east of Airway Place are only needed to provide access to the Otay Business Park (TM 5505) Project (the proposed Project) and no other approved/pending projects traffic were assigned to these roadway segments under cumulative (2020) conditions.

In addition to the roads that will be required to be constructed to provide access to the three projects described above, the development of several of the approved/pending projects listed in Table 2.7-28 will also result in the construction/modifications of existing intersections or roadway improvements in order to provide access to the project site. It is reasonable to assume the completion of the intersections modifications and roadway improvements because the cumulative projects associated with the improvements could not open without the completion of the assumed improvements. Since all the cumulative projects were assumed to be constructed by the year 2020, the following new roadway facilities and intersection modifications within the County of San Diego were assumed to be constructed under the cumulative conditions. The roadway conditions listed here are based on the pending projects constructing facilities required for their development.

- SR-905 Phases 1A & 1B were assumed to be completed and operational. See Section I for more details on the description of Phases 1A &1B of SR-905.
- The Interim Signalized SR-905 Intersection at Otay Mesa (Old Otay Mesa Road) will be removed upon opening of Phase 1A of SR-905.
- The segment of Interim SR-905 between Otay Mesa Road and Airway Road will be removed upon opening of Phase 1A of SR-905.
- Old Otay Mesa Road between Alta Road and Lone Star Road (Paseo De La Fuente) (currently a dirt road) will be built to the standards of a Light Collector (provides access for the following cumulative projects: Vulcan Materials [cumulative traffic assumed at 100%], OMC Properties [cumulative traffic assumed at 13%], and Otay Crossing Commerce Park [cumulative traffic assumed at 13%]);
- Airway Road between Airway Place and Siempre Viva Road (currently does not exist) will be built to the standards of a Light Collector (provides access for the following cumulative project: Otay Business Park [cumulative traffic assumed at 13%] without this roadway there would be no access to the Otay Business Park project);
- Siempre Viva Road between the CHP entrance east of Enrico Fermi Drive and Airway Place (currently only provides 2 westbound travel lanes) will be improved to the standards of a Light Collector Road (provides access for the following cumulative project: Otay Business Park [cumulative traffic assumed at 13%] without this roadway there would be no access to the Otay Business Park project);
- Siempre Viva Road between Airway Place and Lone Star Road (currently does not exist) will be built to the standards of a Light Collector Road (provides access for the following cumulative project: Otay Business Park [cumulative traffic assumed at 13%] without this roadway there would be no access to the Otay Business Park project);

- Harvest Road between Old Otay Mesa Road and Sunroad Boulevard (currently a dirt road) will be built to the standards of a Modified 4-Lane Industrial/Commercial Collector to accommodate a painted median and turn lanes at intersections (provides access for the following cumulative projects: California Crossings [cumulative traffic assumed at 100%] and Otay Tech Centre [Sunroad] [cumulative traffic assumed at 13%]);
- The Otay Mesa Road (SR-905)/Piper Ranch Road intersection has been modified to a four (4) legged intersection (south leg does not currently exist, provides access for the following cumulative projects: Interstate Industrial Centre [cumulative traffic assumed at 13%]); and Sunroad Otay Park [cumulative traffic assumed at 13%]);
- The Old Otay Mesa Road/Sanyo Avenue-Sunroad Boulevard intersection has been constructed as a four (4) legged intersection (north leg does not currently exist, provides access for the following cumulative project: Otay Tech Centre [cumulative traffic assumed at 13%]);
- The Old Otay Mesa Road/Vann Centre Boulevard intersection has been constructed as a T-intersection (Vann Centre Boulevard does not currently exist, provides access for the following cumulative projects: Otay Tech Centre [cumulative traffic assumed at 13%] and International Industrial Park[cumulative traffic assumed at 13%]);
- The Old Otay Mesa Road/Enrico Fermi Drive intersection has been modified to a four (4) legged intersection (north leg does not currently exist access, provides access for the following cumulative project: International Industrial Park [cumulative traffic assumed at 13%]);
- The Alta Road/Lone Star Road (Paseo De La Fuente) intersection has been modified to a four (4) legged intersection (west leg currently does not exist, provides access for the following cumulative project: International Industrial Park [cumulative traffic assumed at 13%]); and
- The Old Otay Mesa Road/Harvest Road intersection was assumed to be signalized (signalization of this intersections is required to provide access for the following cumulative project: California Crossings [cumulative traffic assumed at 100%]).

All other roadway segments and intersections were assumed to have the same lane configuration and traffic control as what currently exists (See Figure 2.7-1). Figure 2.7-29, *Cumulative (2020) With SR-905 Roadway Segment Conditions,* and Figure 2.7-30, *Cumulative (2020) With SR-905 Intersection Conditions,* illustrate the cumulative (2020) with SR-905 1A & 1B roadway conditions.

Cumulative (Year 2020) With SR-905 Traffic Forecasts

The traffic forecast for cumulative (2020) with SR-905 Phases 1A and 1B was prepared by SANDAG based on the Series 11 model. The 2020 land use information included in the model was based on the list of approved/pending projects in the County of San Diego summarized in Table 2.7-28. In addition, the City of San Diego provided SANDAG with proposed intensity of development that would occur by the year 2020 for the area of Otay Mesa located within the City's jurisdiction. The roadway network assumptions included in the SANDAG model forecasts for the year 2020 were based on the assumptions previously described and illustrated in Figure 2.7-29 and Figure 2.7-30.

The trip distribution for the California Crossings project was based on a Retail Site Selection Analysis prepared by CBRE rather than a Select Zone distribution assignment generated by

SANDAG. The Retail Site Selection Analysis estimated that approximately 70% of the customer base for California Crossings would come from cross border traffic from Mexico, while the SANDAG Select Zone forecast only estimated that 14% of the customer base for California Crossings would come from Mexico. Therefore, the results obtained from the SANDAG 2020 model forecast were modified to adjust the distribution for the California Crossings Project to reflect the findings of the Retail Site Selection Analysis.

Figure 2.7-31, *Cumulative (2020) With SR-905 Without Project Daily Traffic Volumes*, and Figure 2.7-32, *Cumulative (Year 2020) With SR-905 Without Project Peak Hour Traffic Volumes*, provide the cumulative (2020) with SR-905 Phases 1A & 1B traffic volumes without the addition of Project-related traffic, while Figure 2.7-33, *Cumulative (2020) With SR-905 With Project Daily Traffic Volumes*¸ and Figure 2.7-34, *Cumulative (Year 2020) With SR-905 With Project Traffic Volumes*, provide the cumulative (2020) with SR-905 Phases 1A & 1B traffic volumes with the addition of Project traffic. Since, as discussed later in this section, the proposed Project is only included in the cumulative (2020) conditions based on 13% of its planned development, the Project traffic volumes shown on Figure 2.7-33 and Figure 2.7-34 illustrate the traffic volumes for the full build-out of the Project (i.e., Phases 1 through 4) as well as what would be represented by only 13% of the proposed Project.

Road Segments (2020 With SR-905 Conditions)

Table 2.7-29, *Cumulative (2020) With SR-905 Roadway Segment Daily LOS Summary*, summarizes the daily roadway segment level of service analysis under cumulative (2020) with SR-905 (Phases 1A & 1B). As shown in Table 2.7-29, the following roadway segments operate at LOS E under cumulative (2020) with SR-905 (Phases 1A & 1B) conditions:

- Otay Mesa Rd (Old Otay Mesa Rd) between Enrico Fermi Dr and Alta Rd (LOS E); and
- Enrico Fermi Dr between Otay Mesa Rd and Airway Rd (LOS E).

If the proposed Project is fully occupied (the 2020 forecast assumed Otay Business Park, TM 5505 is developed at 13%), it would add 2,344 ADT to the segment of Otay Mesa Road between Enrico Fermi Drive and Alta Road and 6,027 ADT to the segment of Enrico Fermi Drive between Otay Mesa Road and Airway Road. Therefore, the addition of Project traffic to the segment of Otay Mesa Road between Enrico Fermi Drive and Alta Road and the segment of Enrico Fermi Drive between Otay Mesa Road and Airway Road under Cumulative (2020) With SR-905 conditions would represent cumulatively significant impacts of the proposed Project (**Significant Cumulative Impact TR-31** and **Significant Direct and Cumulative Impact TR-10**). All other key roadway segments operate at an acceptable LOS D or better under cumulative (2020) with SR-905 (Phases 1A & 1B) conditions.

Intersections (2020 With SR-905 Conditions) – Synchro Analysis

Table 2.7-30, *Cumulative (2020) With SR-905 Project Buildout Intersection LOS Summary*, summarizes the cumulative (2020) with and without SR-905 (Phases 1A & 1B) peak hour intersection level of service analysis. As shown in Table 2.7-30, the following intersections operate at an unacceptable LOS F under cumulative (2020) with SR-905 Phases 1A & 1B conditions, either with or without Project traffic, during at least one of the peak hours:

- Otay Mesa Road/Vann Centre Boulevard;

- Otay Mesa Road/Alta Road;
- Airway Road/Sanyo Avenue;
- Airway Road/Paseo De Las Americas; and
- Siempre Viva Road/Michael Faraday Drive.

The Otay Mesa Road/Vann Centre Boulevard intersection operates at LOS F during the PM peak hour, if the Project is fully occupied (the 2020 forecast assumes Otay Business Park, TM 5505 is developed at 13%), it would add 8 peak hour trips to the southbound approach, and 321 peak hour trips to the overall intersection during the PM peak hour. Therefore, the proposed Project is considered to be part of the significant cumulative impact at the Otay Mesa Road/Vann Centre Boulevard intersection (**Significant Cumulative Impact TR-32)**.

The Otay Mesa Road/Alta Road intersection operates at LOS F during both the AM and PM peak hours, if the project is fully occupied (the 2020 forecast assumes Otay Business Park, TM 5505 is developed at 13%), it would add 200 peak hour trips to the overall intersection during the AM peak hour and 200 peak hour trips to the overall intersection during the PM peak hour. Therefore, the proposed project is considered to be part of the significant cumulative impact at the Otay Mesa Road/Alta Road intersection (**Significant Cumulative Impact TR-33**).

The Airway Road/Sanyo Avenue intersection operates at LOS F during both the AM and PM peak hours under cumulative (2020) without Project conditions. The addition of traffic generated by 13% of the Otay Business Park Project would increase the cumulative without Project delay by 10.6 seconds during the AM peak hour and 7.2 seconds during the PM peak hour. The increase in delay would exceed the one (1) second allowed per the City of San Diego's thresholds for significance for an intersection operating at LOS F. Therefore, the proposed project is considered to be part of the significant impact at the Airway Road/Sanyo Avenue intersection under cumulative (2020) conditions. Per the City of San Diego significance standards, this impact is considered to be a direct impact of the proposed Project (**Significant Direct Impact TR-34**).

The Airway Road/Paseo De Las Americas intersection operates at LOS F during both the AM and PM peak hour, if the project is fully occupied (the 2020 forecast assumes Otay Business Park, TM 5505 is developed at 13%), it would not add any trips to the failing (critical) movement, however it would add and 281 peak hour trips to the overall intersection during the AM peak hour and 281 peak hour trips to the overall intersection during the PM peak hour. Therefore, the proposed project is considered to be part of the significant cumulative impact at the Airway Road/Paseo De Las Americas intersection (**Significant Cumulative Impact TR-35**).

The Siempre Viva Road/Michael Faraday Drive intersection operates at LOS F during both the AM and PM peak hours under cumulative (2020) without Project conditions. The addition of traffic generated by 13% of the Otay Business Park, TM 5505 Project site would increase the cumulative without Project delay on the southbound left-through movement by 188.2 seconds during the PM peak hour. The increase in delay would exceed the one (1) second allowed per the City of San Diego's thresholds for an intersection operating at LOS F. Therefore, the proposed project is considered to be part of the significant impact at the Siempre Viva Road/Michael Faraday Drive intersection. Pursuant to the City of San Diego's significance standards, this impact is considered to be a direct impact of the proposed Project (**Significant Direct Impact TR-17**).

Intersections (2020 With SR-905 Conditions) – ILV Analysis

Table 2.7-31, *Cumulative (2020) With SR-905 ILV Analysis,* summarizes the cumulative (2020) with SR-905 (Phases 1A & 1B) ILV analysis. As shown in Table 2.7-31, all intersections operate under stable flow during the AM and PM peak hours. As previously noted, since the upper limits of the ILV analysis is based on the premise of an operating condition of LOS C or better, and since LOS D was considered an acceptable level of service, the ILV analysis is not utilized to determine Project significance and is provided only for the purpose of disclosure.

Year 2030 Conditions

Study Area Improvements and Roadway Conditions

The Board of Supervisors for County of San Diego approved an Amendment to the East Otay Mesa Specific Plan on August 1, 2007. This Amendment resulted in a number of changes to the General Plan Circulation Element and EOMSP that directly impact the roadway network in the vicinity of the proposed Project. Figure 2.7-35, *Adopted Circulation Plan for East Otay Mesa (2030 Conditions)*, illustrates the recently adopted circulation plan for 2030 conditions in the East Otay Mesa area. Please refer to the Project's traffic impact analysis (SEIR Technical Appendix H) for a detailed description of changes to the circulation network for East Otay Mesa that are assumed in the analysis of the 2030 traffic conditions. Figure 2.7-36, *Adopted Circulation Plan Traffic Forecast – 2030 Plus Project Buildout,* depicts the traffic forecast for East Otay Mesa with buildout of the proposed Project and other cumulative developments.

Road Segments (2030 Conditions)

Table 2.7-32, *2030 With Project Buildout Roadway Segment Daily LOS Summary,* summarizes the LOS conditions for 2030 with Project buildout and cumulative traffic. As shown in Table 2.7-32, all roadway segments in the study area are projected to operate at an acceptable LOS D or better. Since all roadway segments would operate at LOS D or better under 2030 conditions with and without buildout of the proposed Project, a cumulatively significant impact would not occur.

Internal Circulation – Cumulative Conditions

The cumulative (2020) with SR-905 (Phases 1A & 1B) plus Phases 1 through 4 Project traffic volumes are illustrated in Figure 2.7-37, *Cumulative (2020) With SR-905 With Project Buildout On-Site Traffic Volumes*. Figure 2.7-38, *Year 2030 Project Buildout Plus Cumulative On-Site Traffic Volumes,* illustrates the 2030 plus Phases 1 through 4 Project daily traffic volumes on the internal roadway network. Table 2.7-33, *Summary of On-Site and Project Access Roadway Segment Improvements (Cumulative Conditions),* lists the roadway improvements required to facilitate access through the site for each of the cumulative conditions scenarios.

Table 2.7-34, *Internal Roadway Segment Daily LOS Summary (Cumulative Conditions),* provides a summary of the levels of service at the internal roadways. As shown, all internal roadways would operate at acceptable LOS C or better if designed based on the recommendations summarized in Table 2.7-33. Therefore, no impact is identified associated with C Street south of A Street.

Table 2.7-35, *Internal Intersection LOS Summary (Cumulative Conditions),* summarizes the LOS for on-site intersections associated with cumulative conditions. The data presented in Table 2.7-35 assumes that on-site intersections would be improved in a manner consistent with the intersection

configurations depicted on Figure 2.7-39. As shown in Table 2.7-35, all intersections are anticipated to operate at acceptable LOS under cumulative conditions and a significant impact would not occur. Improvements depicted on Figure 2.7-39 would be required as conditions of Project approval.

Hazards Due to an Existing Transportation Design Feature

Under all of the cumulative scenarios evaluated in this SEIR, it is assumed that all roadway and intersection improvements would be conducted in accordance with current County standards, which would prevent the creation of roadway segments or intersections which may cause a significant traffic operational impact due to an existing substandard transportation design feature. Accordingly, cumulatively significant impacts due to transportation design features would not occur.

Hazards to Pedestrians or Bicyclists

The proposed Project would be required to implement on- and off-site improvements to the circulation network in accordance with current County policies for roadway construction. Other developments in the cumulative study area similarly would be required to implement roadway and intersection improvements in accordance with County requirements. Accordingly, although the proposed Project would add substantial traffic to the surrounding circulation network, adherence to County requirements for roadway design would ensure that appropriate accommodations for pedestrians and bicyclists are made within the roadway network within East Otay Mesa so as not to create a significant traffic operational impact. Cumulatively significant impacts would not occur.

2.7.4 Significance of Impacts Prior to Mitigation

Significant Direct Impact TR-1: Implementation of Phases 1, Phases 1 and 2, Phases 1 through 3, and Phases 1 through 4 of the proposed Project would lower the LOS on the City of San Diego segment of Interim SR-905 (Otay Mesa Road) from La Media to Piper Ranch Road from LOS E to LOS F and would increase the v/c ratio in excess of the City of San Diego's threshold of significance for roads operating at LOS E. Although Phase 1, Phases 1 and 2, and Phases 1 through 3 conditions were shown to operate acceptably based on the arterial roadway segment analysis and the intersections at both ends of this roadway segment were shown to operate at acceptable levels of service, since this roadway segment is not currently built out to its ultimate circulation element classification, impacts to this roadway segment are considered significant pursuant to City of San Diego policy. The increase in v/c for this CMP System Roadway also would exceed the allowable change due to Project impact established by the CMP under Phases 1 through 4 conditions; as such, Project impacts also would be significant pursuant to the CMP.

Significant Direct Impact TR-2: Implementation of Phase 1, Phases 1 through 2, Phases 1 through 3, and Phases 1 through 4 of the proposed Project would lower the existing LOS on the roadway segment of Otay Mesa Road from Sanyo Avenue to Enrico Fermi Drive from LOS D to LOS E or F, which is evaluated as a significant direct impact pursuant to the County General Plan PFE.

Significant Direct Impact TR-3: Implementation of Phase 1, Phases 1 through 2, Phases 1 through 3, and Phases 1 through 4 of the proposed Project would lower the LOS on the City of San Diego segment of SR-905 from Otay Mesa Road to Siempre Viva Road from LOS E to LOS F and would increase the v/c along this segment in excess of the City of San Diego's threshold of significance for roads operating at LOS F, thereby resulting in a significant direct impact. The increase in v/c for this CMP System Roadway also would exceed the allowable change due to Project impact established by the CMP; as such, Project impacts also would be significant pursuant to the CMP.

Significant Direct Impact TR-4: Implementation of Phases 1 through 3 and Phases 1 through 4 of the proposed Project would increase the v/c ratio on the City of San Diego segment of Interim SR-905 (Otay Mesa Road) from Heritage Road to Cactus Road in excess of the City of San Diego's threshold of significance for roads operating at LOS F, thereby resulting in a significant direct impact. The increase in v/c for this CMP System Roadway also would exceed the allowable change due to Project impact established by the CMP; as such, Project impacts also would be significant pursuant to the CMP.

Significant Direct Impact TR-5: Implementation of Phases 1 through 3 and Phases 1 through 4 of the proposed Project would increase the v/c ratio on the City of San Diego segment of Interim SR-905 (Otay Mesa Road) from Cactus Road to Britannia Boulevard in excess of the City of San Diego's threshold of significance for roads operating at LOS F, thereby resulting in a significant direct impact. The increase in v/c for this CMP System Roadway also would exceed the allowable change due to Project impact established by the CMP; as such, Project impacts also would be significant pursuant to the CMP.

Significant Direct Impact TR-6: Implementation of Phases 1 through 3 and Phases 1 through 4 of the proposed Project would result in a LOS E and F (respectively) on the County of San Diego segment of Airway Road from Airway Place to Alta Road, which does not exist under existing conditions. Since the deficiency in LOS is the result of Project-related traffic, Project impacts to this roadway segment are considered significant pursuant to the County General Plan PFE.

Significant Direct Impact TR-7: Implementation of Phases 1 through 3 and Phases 1 through 4 of the proposed Project would result in a LOS E and F (respectively) on the County of San Diego segment of Siempre Viva Road from Enrico Fermi Drive to Alta Road, portions of which do not exist under existing conditions. Since the deficiency in LOS is the result of Project-related traffic, Project impacts to this roadway segment are considered significant pursuant to the County General Plan PFE.

Significant Direct Impact TR-8: Implementation of Phases 1 through 3 and Phases 1 through 4 of the proposed Project would increase the v/c ratio on the City of San Diego segment of La Media Road from Saint Andrews Avenue to Airway Road in excess of the City of San Diego's threshold of significance for roads operating at LOS F, thereby resulting in a significant direct impact.

Significant Direct Impact TR-9: Implementation of Phases 1 through 3 and Phases 1 through 4 of the proposed Project would increase the v/c ratio on the City of San Diego segment of La Media Road from Airway Road to Siempre Viva Road in excess of the City of San Diego's threshold of significance for roads operating at LOS F, thereby resulting in a significant direct impact.

Significant Direct and Cumulative Impact TR-10: Implementation of Phases 1 through 3 and Phases 1 through 4 of the proposed Project would lower the LOS on the County of San Diego segment of Enrico Fermi Drive from Otay Mesa Road to Airway Road from LOS A to LOS E. These impacts are evaluated as significant direct impacts pursuant to the County General Plan PFE. Additionally, under cumulative (2020) conditions, Project-related traffic would contribute to a deficient LOS along this roadway segment, which represents a significant cumulative impact.

Significant Direct Impact TR-11: Implementation of Phases 1 through 4 of the proposed Project would lower the LOS on the County of San Diego segment of Interim SR-905 (Otay Mesa Road)

from Britannia Boulevard to La Media Road from LOS E to LOS F and would increase the v/c ratio by 0.37, which is evaluated as a significant direct impact pursuant to the County General Plan PFE. The increases in v/c for this CMP System Roadway also would exceed the allowable change due to Project impact established by the CMP; as such, Project impacts also would be significant pursuant to the CMP.

Significant Direct Impact TR-12: Implementation of Phases 1 through 3 and Phases 1 through 4 of the proposed Project would lower the LOS on the County of San Diego segment of Interim SR-905 (Otay Mesa Road) from Piper Ranch Road to SR-125 from LOS C to LOS F and would increase the v/c ratio by 0.41, which is evaluated as a significant direct impact pursuant to the County General Plan PFE. The increases in v/c for this CMP System Roadway also would exceed the allowable change due to Project impact established by the CMP; as such, Project impacts also would be significant pursuant to the CMP.

Significant Direct Impact TR-13: Implementation of Phase 1, Phases 1 through 2, Phases 1 through 3, and Phases 1 through 4 of the proposed Project would lower the existing LOS at the City of San Diego intersection of Siempre Viva Road/Paseo de las Americas from LOS D to LOS F during the PM peak hour and would increase the delay at this intersection in excess of the one (1) second allowed per the City of San Diego thresholds of significance for an intersection operating at LOS F. The addition of Project traffic to this intersection during each phase of the proposed development is evaluated as a significant direct impact.

Significant Direct Impact TR-14: Implementation of Phases 1 through 2, Phases 1 through 3, and Phases 1 through 4 of the proposed Project would lower the existing LOS at the County of San Diego intersection of Otay Mesa Road/Interim SR-905 Connector from LOS B or C to LOS F and would increase the delay at this CMP System intersection in excess of the thresholds identified in the County General Plan PFE in both the AM and PM peak hours. These impacts are evaluated as a significant direct impact pursuant to the County General Plan PFE. In addition, Project impacts at this intersection would exceed the allowable change due to Project impact established by the CMP; as such, Project impacts also would be significant pursuant to the CMP.

Significant Direct Impact TR-15: Implementation of Phases 1 through 2, Phases 1 through 3, and Phases 1 through 4 of the proposed Project would lower the existing LOS at the County of San Diego intersection of Otay Mesa Road/Sanyo Avenue from LOS B to LOS E or F during the PM peak hour. These impacts are evaluated as a significant direct impact pursuant to the County General Plan PFE.

Significant Direct Impact TR-16: Implementation of Phases 1 through 2, Phases 1 through 3, and Phases 1 through 4 of the proposed Project would lower the existing LOS at the County of San Diego intersection of Otay Mesa Road/Enrico Fermi Drive from LOS A or B to LOS E or F during the AM and PM peak hours. These impacts are evaluated as significant direct impacts pursuant to the County General Plan PFE.

Significant Direct Impact TR-17: Implementation of Phases 1 through 2, Phases 1 through 3, and Phases 1 through 4 of the proposed Project would lower the existing LOS at the City of San Diego intersection of Siempre Viva /Michael Faraday from LOS B or C to LOS F during the AM peak hour and from LOS B to LOS E or F during the PM peak hour, and the Project would increase the delay at this intersection in excess of the City of San Diego thresholds for significance for an intersection operating at LOS E or F. Additionally, under cumulative (2020) conditions, Project-related traffic

would contribute to a deficient LOS at this intersection, which represents a significant direct impact pursuant to City of San Diego significance standards.

Significant Direct Impact TR-18: Implementation of Phases 1 through 3 and Phases 1 through 4 of the proposed Project would lower the existing LOS at the City of San Diego intersection of Interim SR-905 (Otay Mesa Road)/Heritage Road from LOS C to LOS E or LOS F, and would increase the delay at this intersection in excess of the two (2) seconds allowed per the City of San Diego thresholds of significance for an intersection operating at LOS E and the one (1) second allowed per the City of San Diego thresholds of significance for an intersection operating at LOS F during both the AM and PM peak hours. The addition of Project buildout traffic to this intersection is evaluated as a significant direct impact for the AM and PM peak hours for Phases 1 through 3 and Phases 1 through 4. In addition, Project traffic would exceed the allowable change due to Project impact established by the CMP; as such, Project impacts also would be significant pursuant to the CMP.

Significant Direct Impact TR-19: Implementation of Phases 1 through 3 and buildout of the proposed Project would lower the existing LOS at the City of San Diego intersection of Interim SR-905 (Otay Mesa Road)/Cactus Road from LOS A to LOS F in the AM peak hour and would increase the delay at this intersection in excess of the one (1) second allowed per the City of San Diego thresholds of significance for an intersection operating at LOS F. In addition, Project traffic would increase the delay at this CMP System intersection in excess of the allowable change due to Project impact established by the CMP; as such, Project impacts also would be significant pursuant to the CMP.

Significant Direct Impact TR-20: Implementation of Phases 1 through 3 and buildout of the proposed Project would lower the existing LOS at the City of San Diego intersection of Interim SR-905 (Otay Mesa Road)/SR-125 Northbound Ramp from LOS A to LOS F during the PM peak hour. The increase in delay at this intersection would exceed the allowable change in delay per the City of San Diego thresholds of significance for an intersection operating at LOS F. In addition, Project traffic from these phases would exceed the allowable change due to Project impact established by the CMP; as such, Project impacts also would be significant pursuant to the CMP.

Significant Direct Impact TR-21: Implementation of Phases 1 through 3 of the proposed Project would lower the existing LOS at the County of San Diego intersection of Airway Road/Enrico Fermi Drive from LOS A to LOS E during the AM peak hour and from LOS B to LOS E during the PM peak hour. Buildout of the proposed Project would lower the existing LOS at the intersection of Airway Road/Enrico Fermi Drive from LOS A to LOS F during the AM peak hour and from LOS B to LOS F during the PM peak hour. The addition of Project traffic from these phases to this intersection during the AM and PM peak hours is evaluated as a significant direct impact pursuant to the County General Plan PFE.

Significant Direct Impact TR-22: Implementation of Phases 1 through 3 and buildout of the proposed Project would lower the existing LOS at the County of San Diego intersection of Siempre Viva Road/Enrico Fermi Drive from LOS B to LOS F during both peak hours. The addition of Project traffic from these phases to this intersection during the AM and PM peak hours is evaluated as a significant direct impact pursuant to the County General Plan PFE.

Significant Direct Impact TR-23: Buildout of the Project would degrade the existing LOS from LOS A to LOS F during the AM peak hour and from LOS B to LOS E during the PM peak hour. The

increase in delay caused by Project traffic under this scenario would exceed the allowable change in delay per the City of San Diego thresholds of significance for an intersection operating at LOS E or F. In addition, Project traffic from Phases 1 through 4 would increase the delay at this CMP System intersection in excess of the allowable change due to Project impact established by the CMP; as such, Project impacts also would be significant pursuant to the CMP.

Significant Direct Impact TR-24: Buildout of the proposed Project would lower the existing LOS from LOS C to LOS F during both peak hours. The increase in delay caused by Project traffic under this scenario would exceed the allowable change in delay per the City of San Diego thresholds of significance for an intersection operating at LOS F. In addition, Project traffic from these phases would exceed the allowable change due to Project impact established by the CMP; as such, Project impacts also would be significant pursuant to the CMP.

Significant Direct Impact TR-25: Buildout of the proposed Project would lower the existing LOS at the intersection of Interim SR-905 (Otay Mesa Road)/Piper Ranch Road from LOS A to LOS F during the AM peak hour. The increase in delay at this intersection would exceed the allowable change in delay per the City of San Diego thresholds of significance for an intersection operating at LOS F. In addition, Project traffic from these phases would exceed the allowable change due to Project impact established by the CMP; as such, Project impacts also would be significant pursuant to the CMP.

Significant Direct Impact TR-26: With buildout of the proposed Project, the LOS at the intersection of Otay Mesa Road at the SR-125 Southbound ramp would be lowered from LOS A to LOS E in the PM peak hour. The addition of Project traffic to this intersection during the PM peak hours is evaluated as a significant direct impact pursuant to the County General Plan PFE. In addition, traffic from buildout of the proposed Project would exceed the allowable change due to Project impact established by the CMP; as such, Project impacts also would be significant pursuant to the CMP.

Significant Direct Impact TR-27: Peak hour traffic volumes at the intersection of Airway Road/Alta Road warrant improvements with each phase of the proposed Project in addition to required signalization under existing plus Project buildout conditions. These conditions are evaluated as significant direct impacts of the proposed Project.

Significant Direct Impact TR-28: Peak hour traffic volumes at the on-site intersection of Airway Road/Siempre Viva Road would warrant improvements with Phases 1 and 2, Phases 1 through 3, and Project buildout of the proposed Project in addition to required signalization under existing plus Project buildout conditions. These conditions are evaluated as significant direct impacts of the proposed Project.

Significant Direct Impact TR-29: Peak hour traffic volumes at the on-site intersection of Siempre Viva/Alta Road would warrant improvements with each phase of the proposed Project as well as signalization under existing plus Project buildout conditions. These conditions are evaluated as significant direct impacts of the proposed Project.

Significant Direct Impact TR-30: Implementation of each phase of the proposed Project has the potential to result in substantial disruptions to existing traffic patterns as a result of construction-related activities and/or equipment.

Significant Cumulative Impact TR-31: The proposed Project would contribute traffic to the roadway segment of Otay Mesa Road between Enrico Fermi Drive and Alta Road (County of San Diego) which is projected to operate at an unacceptable LOS in the Cumulative (2020) With SR-905 Phases 1A and 1B condition; this is evaluated as a cumulatively significant impact of the proposed Project.

Significant Cumulative Impact TR-32: The proposed Project would contribute traffic to the intersection of Otay Mesa Road/Vann Centre Boulevard (County of San Diego) which is projected to operate at an unacceptable LOS in the Cumulative (2020) With SR-905 Phases 1A and 1B condition; this is evaluated as a cumulatively significant impact of the proposed Project.

Significant Cumulative Impact TR-33: The proposed Project would contribute traffic to the intersection of Otay Mesa Road/Alta Road (County of San Diego) which is projected to operate at an unacceptable LOS in the Cumulative (2020) With SR-905 Phases 1A and 1B condition; this is evaluated as a cumulatively significant impact of the proposed Project.

Significant Direct Impact TR-34: The proposed Project would contribute traffic to the intersection of Airway Road/Sanyo Avenue (City of San Diego) which is projected to operate at an unacceptable LOS in the Cumulative (2020) With SR-905 Phases 1A and 1B condition; this is evaluated as a significant direct impact of the proposed Project.

Significant Cumulative Impact TR-35: The proposed Project would contribute traffic to the intersection of Airway Road/Paseo De Las Americas (County of San Diego) which is projected to operate at an unacceptable LOS in the Cumulative (2020) With SR-905 Phases 1A and 1B conditions; this is evaluated as a cumulatively significant impact of the proposed Project.

2.7.5 Mitigation

2.7.5.1 Mitigation Measures from the EOMSP Final EIR

Mitigation measures were identified by the EOMSP Final EIR (1994) to address impacts to transportation and traffic resulting from implementation of the EOMSP, and include the following:

7A. The County of San Diego shall work with the Cities of san Diego and Chula Vista to resolve inconsistencies in future roadway designations and shall coordinate roadway design at jurisdictional boundaries.

7B. Prior to the formation of an assessment district to fund the implementation of the regional Circulation Element, projects within the East Otay Mesa Specific Plan are required to provide a traffic impact report to analyze and mitigate their off-site traffic impacts.

These mitigation measures have been incorporated into the Project-specific mitigation requirements set forth in SEIR Section 2.7.5.2 as necessary and appropriate to reduce Project-specific transportation and traffic impacts to less than significant levels.

2.7.5.2 Project-Specific Mitigation

M-TR-1 **SR-905 IMPROVEMENTS [DPW] [Final Map]**

Intent: To mitigate impacts to the segment of Interim SR-905 (Otay Mesa Road) from La Media Road to Piper Ranch Road that would occur during all Project Phases.

Description of Requirement: The Project applicant or Master Developer shall provide evidence to the County of San Diego that the SR-905 Phases 1A and 1B are open to traffic. **Documentation:** The applicant shall provide the Department of Public Works with evidence that Phases 1A and 1B of the SR-905 are open to traffic. **Timing:** The applicant shall provide the Department of Public Works with evidence that Phase 1A and 1B of the SR-905 are open to traffic prior to the recordation of the first final map. **Monitoring:** The Department of Public Works shall review the evidence provided by the applicant for compliance with this mitigation measure. Following review, the Department of Public Works shall provide the applicant with a letter of clearance. **Traffic Study References:** Section VIII.

M-TR-2a **OTAY MESA ROAD IMPROVEMENTS [DPW] [Final Map]**

Intent: To mitigate impacts to the segment of Otay Mesa Road between Sanyo Avenue and Enrico Fermi Drive that would occur during Project Phase 1. **Description of Requirement:** The Project applicant or Master Developer shall improve the roadway segment of Otay Mesa Road between Sanyo Avenue and Enrico Fermi Drive to provide a two-lane facility with one lane in each direction and a center two-way left turn lane. **Documentation:** The applicant shall prepare improvement plans for roadway improvements and shall submit the plans to the Department of Public Works for review and approval. Upon approval of the plans and completion of improvements, the applicant shall provide the Department of Public Works evidence of completed improvements. **Timing:** Improvements shall be completed prior to recordation of the Final Map for Unit 1. **Monitoring:** The Department of Public Works shall review the improvement plans for conformance with this mitigation measure. Upon approval of the improvement plans, a decision of approval shall be issued to the applicant. Following final inspection, the Department of Public Works shall provide the applicant with a letter of acceptance for the completed improvements. **Traffic Study References:** Section VIII and Figure 49.

M-TR-2b **OTAY MESA ROAD IMPROVEMENTS [DPW] [Final Map]**

Intent: To mitigate impacts to the segment of Otay Mesa Road between Sanyo Avenue and Enrico Fermi Drive that would occur with implementation of Project Phases 1 and 2, Phases 1 through 3, and Phases 1 through 4. **Description of Requirement:** The Project applicant or Master Developer shall improve the roadway segment of Otay Mesa Road between Sanyo Avenue and Enrico Fermi Drive to provide a four-lane facility with two lanes in each direction. **Documentation:** The applicant shall prepare improvement plans for roadway improvements and shall submit the plans to the Department of Public Works for review and approval. Upon approval of the plans and completion of improvements, the applicant shall provide the Department of Public Works evidence of completed improvements. **Timing:** Improvements shall be completed prior to recordation of the Final Map for Unit 2. **Monitoring:** The Department of Public Works shall review the improvement plans for conformance with this mitigation measure. Upon approval of the improvement plans, a decision of approval shall be issued to the applicant. Following final inspection, the Department of Public Works shall provide the applicant with a letter of acceptance for the completed improvements. **Traffic Study References:** Section VIII and Figure 50.

M-TR-3 Mitigation Measure M-TR-1 shall apply.

M-TR-4 Mitigation Measure M-TR-1 shall apply.

M-TR-5 Mitigation Measure M-TR-1 shall apply.

M-TR-6 **AIRWAY ROAD IMPROVEMENTS [DPW] [Final Map]**
Intent: To mitigate direct impacts to Airway Road from Airway Place to Alta Road that would occur during implementation of Phases 1 through 3 and Phases 1 through 4 of the proposed Project. **Description of Requirement:** The Project applicant or Master Developer shall improve the segment of Airway Road between Airway Place and Alta Road to provide a four-lane facility with two lanes in each direction. **Documentation:** The applicant shall prepare improvement plans for roadway improvements and shall submit the plans to the Department of Public Works for review and approval. Upon approval of the plans and completion of improvements, the applicant shall provide the Department of Public Works evidence of completed improvements. **Timing:** Improvements shall be completed prior to the recordation of the Final Map for Unit 3. **Monitoring:** The Department of Public Works shall review the improvement plans for conformance with this mitigation measure. Upon approval of the improvement plans, a decision of approval shall be issued to the applicant. Following final inspection, the Department of Public Works shall provide the applicant with a letter of acceptance for the completed improvements. **Traffic Study References:** Table 37 and Figure 51.

M-TR-7a **SIEMPRE VIVA ROAD IMPROVEMENTS [DPW] [Final Map]**
Intent: To provide for adequate site access during Phases 1 through 3 of Project development. **Description of Requirement:** The Project applicant or Master Developer shall improve the segment of Siempre Viva Road between Enrico Fermi Drive and Airway Place to provide a four-lane facility with two lanes in each direction. In addition, the Project applicant or Master Developer shall improve the segment of Siempre Viva Road between Airway Place and Alta Road to provide a two-lane facility with one lane in each direction and a center two-way left-turn lane. **Documentation:** The applicant shall prepare improvement plans for roadway improvements and shall submit the plans to the Department of Public Works for review and approval. Upon approval of the plans and completion of improvements, the applicant shall provide the Department of Public Works evidence of completed improvements. **Timing:** Improvements shall be completed prior to the recordation of the Final Map for Unit 3. **Monitoring:** The Department of Public Works shall review the improvement plans for conformance with this mitigation measure. Upon approval of the improvement plans, a decision of approval shall be issued to the applicant. Following final inspection, the Department of Public Works shall provide the applicant with a letter of acceptance for the completed improvements. **Traffic Study References:** Table 37 and Figure 51.

M-TR-7b **SIEMPRE VIVA ROAD IMPROVEMENTS [DPW] [Final Map]**
Intent: To mitigate direct impacts to Siempre Viva Road from Airway Place to Alta Road that would occur during implementation of Phases 1 through 4 of the proposed Project. **Description of Requirement:** The Project applicant or Master Developer shall improve the segment of Siempre Viva Road between Airway Place and Alta Road to provide a four-lane facility with two lanes in each direction. **Documentation:** The

applicant shall prepare improvement plans for roadway improvements and shall submit the plans to the Department of Public Works for review and approval. Upon approval of the plans and completion of improvements, the applicant shall provide the Department of Public Works evidence of completed improvements. **Timing:** Improvements shall be completed prior to the recordation of the Final Map for Unit 4. **Monitoring:** The Department of Public Works shall review the improvement plans for conformance with this mitigation measure. Upon approval of the improvement plans, a decision of approval shall be issued to the applicant. Following final inspection, the Department of Public Works shall provide the applicant with a letter of acceptance for the completed improvements. **Traffic Study References:** Table 37 and Figure 52.

M-TR-8 Mitigation Measure M-TR-1 shall apply.

M-TR-9 Mitigation Measure M-TR-1 shall apply.

M-TR-10 **ENRICO FERMI DRIVE IMPROVEMENTS [DPW] [Final Map]**

Intent: To mitigate direct impacts to Enrico Fermi Drive from Otay Mesa Road to Airway Road that would occur during implementation of Phases 1 through 3 and Phases 1 through 4 of the proposed Project, and cumulative impacts that would occur during the Cumulative (2020) With SR-905 condition. **Description of Requirement:** The Project applicant or Master Developer shall improve the segment of Enrico Fermi Drive between Otay Mesa Road and Airway Road to provide a four-lane facility with two lanes in each direction. **Documentation:** The applicant shall prepare improvement plans for roadway improvements and shall submit the plans to the Department of Public Works for review and approval. Upon approval of the plans and completion of improvements, the applicant shall provide the Department of Public Works evidence of completed improvements. **Timing:** Improvements shall be completed prior to the recordation of the Final Map for Unit 3. **Monitoring:** The Department of Public Works shall review the improvement plans for conformance with this mitigation measure. Upon approval of the improvement plans, a decision of approval shall be issued to the applicant. Following final inspection, the Department of Public Works shall provide the applicant with a letter of acceptance for the completed improvements. **Traffic Study References:** Section VIII and Figure 51.

M-TR-11 Mitigation Measure M-TR-1 shall apply.

M-TR-12 Mitigation Measure M-TR-1 shall apply.

M-TR-13a **SIEMPRE VIVA ROAD/PASEO DE LAS AMERICAS INTERSECTION IMPROVEMENTS [DPW] [Final Map]**

Intent: To mitigate direct impacts to the intersection of Siempre Viva Road/Paseo de las Americas that would occur with implementation of Phase 1 and Phases 1 and 2 of the Project. **Description of Requirement:** The Project applicant or Master Developer shall improve the intersection of Siempre Viva Road/Paseo De Las Americas to provide the following lane configurations, or shall implement other improvements that are acceptable to both the City and County of San Diego and that achieve an acceptable LOS at this intersection:

- One (1) eastbound left turn lane;
- Three (3) eastbound through lanes;

- One (1) eastbound right turn lane;
- One (1) westbound left turn lane;
- Two (2) westbound through lanes;
- One (1) westbound shared through-right lane;
- One (1) northbound left turn lane;
- Two (2) northbound through lanes;
- One (1) northbound right turn lane;
- One (1) southbound left turn lane;
- One (1) southbound through lane; and
- One (1) southbound shared through-right lane.

It should be noted that improvements to this intersection would require appropriate permits from the City of San Diego and are subject to City approval and therefore may not be feasible. In the event that the City of San Diego does not allow for improvements to this intersection, Project impacts would be significant and unmitigable. **Documentation:** The applicant shall prepare improvement plans for roadway improvements and shall submit the plans to the City of San Diego for review and approval. Upon approval of the plans by the City of San Diego and completion of improvements, the applicant shall provide the Department of Public Works evidence of completed improvements. **Timing:** Prior to the recordation of the Final Map for Unit 1. **Monitoring:** The City of San Diego shall review the improvement plans for conformance with this mitigation measure. Upon approval of the improvement plans, a decision of approval shall be issued to the applicant. Following final inspection, the City of San Diego shall provide the applicant with a letter of acceptance for the completed improvements. The letter of acceptance shall be provided to the Department of Public Works. **Traffic Study References:** Section VIII and Figure 49.

M-TR-13b **SIEMPRE VIVA ROAD/PASEO DE LAS AMERICAS INTERSECTION IMPROVEMENTS [DPW] [Final Map]**

Intent: To mitigate direct impacts to the intersection of Siempre Viva Road/Paseo de las Americas that would occur with implementation of Phases 1 through 3 and Phases 1 through 4 of the proposed Project. **Description of Requirement:** The Project applicant or Master Developer shall improve the intersection of Siempre Viva Road/Paseo De Las Americas to provide the following lane configurations, or shall implement other improvements that are acceptable to both the City and County of San Diego and that achieve an acceptable LOS at this intersection:

- Two (2) eastbound left turn lanes;
- Three (3) eastbound through lanes;
- One (1) eastbound right turn lane;
- One (1) westbound left turn lane;
- Two (2) westbound through lanes;
- One (1) westbound shared through-right lane;
- One (1) northbound left turn lane;
- Two (2) northbound through lanes;
- One (1) northbound right turn lane;
- One (1) southbound left turn lane;
- One (1) southbound through lane; and
- One (1) southbound shared through-right lane.

It should be noted that improvements to this intersection would require appropriate permits from the City of San Diego and are subject to City approval and therefore may not be feasible. In the event that the City of San Diego does not allow for improvements to this intersection, Project impacts would be significant and unmitigable. **Documentation:** The applicant shall prepare improvement plans for roadway improvements and shall submit the plans to the City of San Diego for review and approval. Upon approval of the plans by the City of San Diego and completion of improvements, the applicant shall provide the Department of Public Works evidence of completed improvements. **Timing:** Prior to the recordation of the Final Map for Unit 3. **Monitoring:** The City of San Diego shall review the improvement plans for conformance with this mitigation measure. Upon approval of the improvement plans, a decision of approval shall be issued to the applicant. Following final inspection, the City of San Diego shall provide the applicant with a letter of acceptance for the completed improvements. The letter of acceptance shall be provided to the Department of Public Works. **Traffic Study References:** Section VIII and Figure 51.

M-TR-14 Mitigation Measure M-TR-1 shall apply.

M-TR-15 **OTAY MESA ROAD/SANYO AVENUE INTERSECTION IMPROVEMENTS [DPW] [Final Map]**

Intent: To mitigate direct impacts to the intersection of Otay Mesa Road/Sanyo Avenue that would occur with implementation of Phase 1 and 2, Phases 1 through 3, and Phases 1 through 4 of the proposed Project. **Description of Requirement:** The Project applicant or Master Developer shall modify the traffic signal and widen the intersection to accommodate the following lane configurations at the intersection of Otay Mesa Road/Sanyo Avenue:

- One (1) eastbound through lane;
- One (1) eastbound shared through-right lane;
- One (1) westbound left turn lane;
- Two (2) westbound through lanes;
- One (1) northbound left turn lane; and
- One (1) northbound shared left-right turn lane.

Documentation: The applicant shall prepare improvement plans for roadway improvements and shall submit the plans to the Department of Public Works for review and approval. Upon approval of the plans and completion of improvements, the applicant shall provide the Department of Public Works evidence of completed improvements. **Timing:** Improvements shall be completed prior to recordation of the Final Map for Unit 2. **Monitoring:** The Department of Public Works shall review the improvement plans for conformance with this mitigation measure. Upon approval of the improvement plans, a decision of approval shall be issued to the applicant. Following final inspection, the Department of Public Works shall provide the applicant with a letter of acceptance for the completed improvements. **Traffic Study References:** Section VIII and Figure 50.

M-TR-16a **OTAY MESA ROAD/ENRICO FERMI DRIVE INTERSECTION IMPROVEMENTS [DPW] [Final Map]**

Intent: To mitigate direct impacts to the intersection of Otay Mesa Road/Enrico Fermi Drive that would result from implementation of Phases 1 and 2 of the proposed Project. **Description of Requirement:** The Project applicant or Master Developer shall assure

the widening of the intersection of Otay Mesa Road/Enrico Fermi Drive to accommodate the following lane configurations:

- One (1) eastbound through lane;
- One (1) eastbound right turn lane;
- One (1) westbound left turn lane;
- One (1) westbound through lane;
- One (1) northbound left turn lane; and
- One (1) northbound right turn lane.

Documentation: The applicant shall prepare improvement plans for roadway improvements and shall submit the plans to the Department of Public Works for review and approval. Upon approval of the plans and completion of improvements, the applicant shall provide the Department of Public Works evidence of completed improvements. **Timing:** Improvements shall be completed prior to recordation of the Final Map for Unit 2. **Monitoring:** The Department of Public Works shall review the improvement plans for conformance with this mitigation measure. Upon approval of the improvement plans, a decision of approval shall be issued to the applicant. Following final inspection, the Department of Public Works shall provide the applicant with a letter of acceptance for the completed improvements. **Traffic Study References:** Section VIII and Figure 50.

M-TR-16b **OTAY MESA ROAD/ENRICO FERMI DRIVE INTERSECTION IMPROVEMENTS [DPW] [Final Map]**

Intent: To mitigate direct impacts to the intersection of Otay Mesa Road/Enrico Fermi Drive that would result from implementation of Phases 1 through 3, and Phases 1 through 4 of the proposed Project. **Description of Requirement:** The Project applicant or Master Developer shall assure the widening of the intersection of Otay Mesa Road/Enrico Fermi Drive to accommodate the following lane configurations:

- One (1) eastbound through lane;
- One (1) eastbound right turn lane;
- One (1) westbound left turn lane;
- One (1) westbound through lane;
- Two (2) northbound left turn lanes; and
- One (1) northbound right turn lane.

Documentation: The applicant shall prepare improvement plans for roadway improvements and shall submit the plans to the Department of Public Works for review and approval. Upon approval of the plans and completion of improvements, the applicant shall provide the Department of Public Works evidence of completed improvements. **Timing:** Improvements shall be completed prior to recordation of the Final Map for Unit 3. **Monitoring:** The Department of Public Works shall review the improvement plans for conformance with this mitigation measure. Upon approval of the improvement plans, a decision of approval shall be issued to the applicant. Following final inspection, the Department of Public Works shall provide the applicant with a letter of acceptance for the completed improvements. **Traffic Study References:** Section VIII and Figure 51.

M-TR-17a **SIEMPRE VIVA/MICHAEL FARADAY INTERSECTION IMPROVEMENTS [DPW] [Final Map]**

Intent: To mitigate direct impacts to the intersection of Siempre Viva /Michael Faraday that would occur with implementation of Phases 1 and 2, Phases 1 through 3, and Phases 1 through 4 of the proposed Project. **Description of Requirement:** The Project

applicant or Master Developer shall assure that the intersection of Siempre Viva Road/Michael Faraday is modified or restriped as necessary to accommodate the following lane configurations as recommended by the Traffic Impact Study for this Project and in consultation with the City of San Diego:

- One (1) eastbound left turn lane;
- One (1) eastbound through lane;
- One (1) eastbound shared through-right lane;
- One (1) westbound left turn lane;
- One (1) westbound through lanes;
- One (1) westbound shared through-right lane;
- One (1) northbound right turn lane; and
- One (1) southbound right turn lane.

In addition, the Project applicant or Master Developer shall work with the City of San Diego to restrict the intersection to prevent left turn movements out of Michael Faraday Drive. It should be noted that improvements and turn-movement restrictions at the intersection of Siempre Viva Road/Michael Faraday would require appropriate permits from the City of San Diego and is subject to City approval and therefore may not be feasible. In the event that the City of San Diego does not allow for improvements to this intersection, Project impacts would be significant and unmitigable. **Documentation:** The Project applicant or Master Developer shall submit documentation from the City of San Diego demonstrating the requirements of this condition have been completed. **Timing:** Prior to the recordation of the Final Map for Unit 2. **Monitoring:** The Director of Planning and Land Use shall review the evidence provided by the applicant for compliance with this mitigation measure. Following review, the Director of Planning and Land Use shall provide the applicant with a letter of clearance. **Traffic Study References:** Section VIII and Figure 50.

M-TR-17b **SIEMPRE VIVA/MICHAEL FARADAY INTERSECTION IMPROVEMENTS [DPW] [Final Map]**

Intent: To mitigate significant direct impacts to the intersection of Siempre Viva /Michael Faraday that would occur under in the Cumulative (2020) With SR-905 Phases 1A and 1B condition. **Description of Requirement:** The Project applicant or Master Developer shall improve or agree to improve and provide security for the intersection of Siempre Viva Road/Michael Faraday as recommended by the Traffic Impact Study (refer to Traffic Impact Study Figure 51) and in consultation with the City of San Diego. Improvements required for this intersection under cumulative conditions include the following lane configurations:

- One (1) eastbound left turn lane;
- One (1) eastbound through lane;
- One (1) eastbound shared through-right lane;
- One (1) westbound left turn lane;
- One (1) westbound through lane;
- One (1) westbound shared through-right lane;
- One (1) northbound shared left-through-right turn lane;
- One (1) southbound shared left-through lane; and
- One (1) southbound right turn lane.

It should be noted that improvements and turn-movement restrictions at the intersection of Siempre Viva Road/Michael Faraday would require appropriate permits from the City

of San Diego and is subject to City approval and therefore may not be feasible. In the event that the City of San Diego does not allow for improvements to this intersection, Project impacts would be significant and unmitigable. **Documentation:** The Project applicant or Master Developer shall submit documentation from the City of San Diego demonstrating the requirements of this condition have been completed. **Timing:** The improvements shall be fully constructed to the satisfaction of the City of San Diego prior to the recordation of the Final Map for Unit 4. **Monitoring:** The Director of Planning and Land Use shall review the evidence provided by the applicant for compliance with this mitigation measure. Following review, the Director of Planning and Land Use shall provide the applicant with a letter of clearance. **Traffic Study References:** Section VIII and Figure 53.

M-TR-18 Mitigation Measure M-TR-1 shall apply.

M-TR-19 Mitigation Measure M-TR-1 shall apply.

M-TR-20 Mitigation Measure M-TR-1 shall apply.

M-TR-21a **AIRWAY ROAD/ENRICO FERMI INTERSECTION IMPROVEMENTS [DPW] [Final Map]**

Intent: To mitigate direct impacts that would result from implementation of Phases 1 through 3 of the proposed Project. **Description of Requirement:** The Project applicant or Master Developer shall improve the intersection of Airway Road/Enrico Fermi Drive and modify the existing traffic signal to accommodate the following lane configurations:

- One (1) eastbound left turn lane;
- One (1) eastbound shared through-right lane;
- One (1) eastbound right turn lane;
- One (1) westbound left turn lane;
- One (1) westbound through lane;
- One (1) westbound right turn lane;
- One (1) northbound left turn lane;
- One (1) northbound through lane;
- One (1) northbound shared through-right lane;
- Two (2) southbound left turn lanes;
- One (1) southbound through lane; and
- One (1) southbound shared through-right lane.

Documentation: The applicant shall prepare improvement plans for roadway improvements and shall submit the plans to the Department of Public Works for review and approval. Upon approval of the plans and completion of improvements, the applicant shall provide the Department of Public Works evidence of completed improvements. **Timing:** Improvements shall be completed prior to recordation of the Final Map for Unit 3. **Monitoring:** The Department of Public Works shall review the improvement plans for conformance with this mitigation measure. Upon approval of the improvement plans, a decision of approval shall be issued to the applicant. Following final inspection, the Department of Public Works shall provide the applicant with a letter of acceptance for the completed improvements. **Traffic Study References:** Section VIII and Figure 51.

M-TR-21b **AIRWAY ROAD/ENRICO FERMI INTERSECTION IMPROVEMENTS [DPW] [Final Map]**

Intent: To mitigate direct impacts that would result from implementation of Phases 1 through 4 of the proposed Project. **Description of Requirement:** The Project applicant or Master Developer shall improve the intersection of Airway Road/Enrico Fermi Drive and modify the existing traffic signal to accommodate the following lane configurations:

- One (1) eastbound left turn lane;
- One (1) eastbound shared through-right lane;
- One (1) eastbound right turn lane;
- One (1) westbound left turn lane;
- One (1) westbound shared through-right lane;
- One (1) westbound right turn lane;
- One (1) northbound left turn lane;
- One (1) northbound through lane;
- One (1) northbound shared through-right lane;
- Two (2) southbound left turn lanes;
- One (1) southbound through lane; and
- One (1) southbound shared through-right lane.

Documentation: The applicant shall prepare improvement plans for roadway improvements and shall submit the plans to the Department of Public Works for review and approval. Upon approval of the plans and completion of improvements, the applicant shall provide the Department of Public Works evidence of completed improvements. **Timing:** Improvements shall be completed prior to recordation of the Final Map for Unit 4. **Monitoring:** The Department of Public Works shall review the improvement plans for conformance with this mitigation measure. Upon approval of the improvement plans, a decision of approval shall be issued to the applicant. Following final inspection, the Department of Public Works shall provide the applicant with a letter of acceptance for the completed improvements. **Traffic Study References:** Section VIII and Figure 52.

M-TR-22a **SIEMPRE VIVA ROAD/ENRICO FERMI DRIVE INTERSECTION IMPROVEMENTS [DPW] [Final Map]**

Intent: To mitigate direct impacts that would result from implementation of Phases 1 through 3 of the proposed Project. **Description of Requirement:** The Project applicant or Master Developer shall improve the intersection of Siempre Viva Road/Enrico Fermi Drive and modify the existing traffic signal to accommodate the following lane configurations:

- Two (2) eastbound left turn lanes;
- One (1) eastbound through lane;
- One (1) eastbound shared through-right lane;
- One (1) westbound left turn lane;
- One (1) westbound through lane;
- One (1) westbound shared through-right lane;
- One (1) northbound left turn lane;
- One (1) northbound through lane;
- One (1) northbound shared through-right lane;
- One (1) southbound left turn lane;
- One (1) southbound through lane; and
- One (1) southbound shared through-right lane.

Documentation: The applicant shall prepare improvement plans for roadway improvements and shall submit the plans to the Department of Public Works for review and approval. Upon approval of the plans and completion of improvements, the applicant shall provide the Department of Public Works evidence of completed improvements. **Timing:** Improvements shall be completed prior to recordation of the Final Map for Unit 3. **Monitoring:** The Department of Public Works shall review the improvement plans for conformance with this mitigation measure. Upon approval of the improvement plans, a decision of approval shall be issued to the applicant. Following final inspection, the Department of Public Works shall provide the applicant with a letter of acceptance for the completed improvements. **Traffic Study References:** Section VIII and Figure 51.

M-TR-22b **SIEMPRE VIVA ROAD/ENRICO FERMI DRIVE INTERSECTION IMPROVEMENTS [DPW] [Final Map]**

Intent: To mitigate direct impacts that would result from implementation of Phases 1 through 4 of the proposed Project. **Description of Requirement:** The Project applicant or Master Developer shall improve the intersection of Siempre Viva Road/Enrico Fermi Drive and modify the existing traffic signal to accommodate the following lane configurations:

- Two (2) eastbound left turn lanes;
- One (1) eastbound through lane;
- One (1) eastbound shared through-right lane;
- One (1) westbound left turn lane;
- Two (2) westbound through lanes;
- One (1) westbound right turn lane;
- One (1) northbound left turn lane;
- One (1) northbound through lane;
- One (1) northbound shared through-right lane;
- One (1) southbound left turn lane;
- One (1) southbound through lane; and
- One (1) southbound shared through-right lane.

Documentation: The applicant shall prepare improvement plans for roadway improvements and shall submit the plans to the Department of Public Works for review and approval. Upon approval of the plans and completion of improvements, the applicant shall provide the Department of Public Works evidence of completed improvements. **Timing:** Improvements shall be completed prior to recordation of the Final Map for Unit 4. **Monitoring:** The Department of Public Works shall review the improvement plans for conformance with this mitigation measure. Upon approval of the improvement plans, a decision of approval shall be issued to the applicant. Following final inspection, the Department of Public Works shall provide the applicant with a letter of acceptance for the completed improvements. **Traffic Study References:** Section VIII and Figure 52.

M-TR-23 Mitigation Measure M-TR-1 shall apply.

M-TR-24 Mitigation Measure M-TR-1 shall apply.

M-TR-25 Mitigation Measure M-TR-1 shall apply.

M-TR-26 Mitigation Measure M-TR-1 shall apply.

M-TR-27a **AIRWAY ROAD/ALTA ROAD INTERSECTION IMPROVEMENTS [DPW] [Final Map]**

Intent: To mitigate direct impacts to the on-site intersection of Airway Road/Alta Road that would occur with implementation of Phase 1 of the Project. **Description of Requirement:** The Project applicant or Master Developer shall assure the construction of a stop sign on the northbound approach, and shall improve the intersection to accommodate the following lane configurations:

- One (1) eastbound shared through-right lane;
- One (1) westbound shared left-through lane; and
- One (1) northbound shared left-right lane.

Documentation: The applicant shall prepare improvement plans for roadway improvements and shall submit the plans to the Department of Public Works for review and approval. Upon approval of the plans and completion of improvements, the applicant shall provide the Department of Public Works evidence of completed improvements. **Timing:** Improvements shall be completed prior to recordation of the Final Map for Unit 1. **Monitoring:** The Department of Public Works shall review the improvement plans for conformance with this mitigation measure. Upon approval of the improvement plans, a decision of approval shall be issued to the applicant. Following final inspection, the Department of Public Works shall provide the applicant with a letter of acceptance for the completed improvements. **Traffic Study References:** Table 38 and Figure 44.

M-TR-27b **AIRWAY ROAD/ALTA ROAD INTERSECTION IMPROVEMENTS [DPW] [Final Map]**

Intent: To mitigate direct impacts to the on-site intersection of Airway Road/Alta Road that would occur with Phases 1 and 2 of the Project. **Description of Requirement:** The Project applicant or Master Developer shall improve the intersection to accommodate the following lane configurations:

- One (1) eastbound through lane;
- One (1) eastbound shared through-right lane;
- One (1) westbound shared left-through lane;
- One (1) westbound through lane; and
- One (1) northbound shared left-right lane.

Documentation: The applicant shall prepare improvement plans for roadway improvements and shall submit the plans to the Department of Public Works for review and approval. Upon approval of the plans and completion of improvements, the applicant shall provide the Department of Public Works evidence of completed improvements. **Timing:** Improvements shall be completed prior to recordation of the Final Map for Unit 2. **Monitoring:** The Department of Public Works shall review the improvement plans for conformance with this mitigation measure. Upon approval of the improvement plans, a decision of approval shall be issued to the applicant. Following final inspection, the Department of Public Works shall provide the applicant with a letter of acceptance for the completed improvements. **Traffic Study References:** Table 38 and Figure 45.

M-TR-27c **AIRWAY ROAD/ALTA ROAD INTERSECTION IMPROVEMENTS [DPW] [Final Map]**

Intent: To mitigate direct impacts to the on-site intersection of Airway Road/Alta Road that would occur with Phases 1 through 3 of the Project. **Description of Requirement:**

The Project applicant or Master Developer shall improve the intersection to include an acceleration lane for vehicles making a northbound left turn from Alta Road onto westbound Airway Road, and to accommodate the following lane configurations:

- One (1) eastbound through lane;
- One (1) eastbound shared through-right lane;
- One (1) westbound shared left-through lane;
- One (1) westbound through lane; and
- One (1) northbound shared left-right lane.

Documentation: The applicant shall prepare improvement plans for roadway improvements and shall submit the plans to the Department of Public Works for review and approval. Upon approval of the plans and completion of improvements, the applicant shall provide the Department of Public Works evidence of completed improvements. **Timing:** Improvements shall be completed prior to recordation of the Final Map for Unit 3. **Monitoring:** The Department of Public Works shall review the improvement plans for conformance with this mitigation measure. Upon approval of the improvement plans, a decision of approval shall be issued to the applicant. Following final inspection, the Department of Public Works shall provide the applicant with a letter of acceptance for the completed improvements. **Traffic Study References:** Table 38 and Figure 46.

M-TR-27d **AIRWAY ROAD/ALTA ROAD INTERSECTION IMPROVEMENTS [DPW] [Final Map]**

Intent: To mitigate direct impacts to the on-site intersection of Airway Road/Alta Road that would occur with Phases 1 through 4 of the Project. **Description of Requirement:** The Project applicant or Master Developer shall assure the construction of a traffic signal. In addition, the Project applicant or Master Developer shall improve the intersection to accommodate the following lane configurations:

- One (1) eastbound through lane;
- One (1) eastbound shared through-right lane;
- One (1) westbound left turn lane;
- Two (2) westbound through lanes;
- One (1) northbound left turn lane; and
- One (1) northbound shared left-right lane.

Documentation: The applicant shall prepare improvement plans for roadway improvements and shall submit the plans to the Department of Public Works for review and approval. Upon approval of the plans and completion of improvements, the applicant shall provide the Department of Public Works evidence of completed improvements. **Timing:** Improvements shall be completed prior to recordation of the Final Map for Unit 4. **Monitoring:** The Department of Public Works shall review the improvement plans for conformance with this mitigation measure. Upon approval of the improvement plans, a decision of approval shall be issued to the applicant. Following final inspection, the Department of Public Works shall provide the applicant with a letter of acceptance for the completed improvements. **Traffic Study References:** Table 38 and Figure 47.

M-TR-28a **AIRWAY ROAD/SIEMPRE VIVA ROAD INTERSECTION IMPROVEMENTS [DPW] [Final Map]**

Intent: To mitigate direct impacts to the on-site intersection of Airway Road/Siempre Viva Road that would occur with Phase 2 of the proposed Project. **Description of Requirement:** The Project applicant or Master Developer shall assure the construction

of a stop sign at the eastbound approach to the intersection of Airway Road/Siempre Viva Road. In addition, the Project applicant or Master Developer shall improve the intersection to accommodate the following lane configurations:

- One (1) eastbound shared left-right lane;
- One (1) northbound shared left-through lane; and
- One (1) southbound shared through-right lane.

Documentation: The applicant shall prepare improvement plans for roadway improvements and shall submit the plans to the Department of Public Works for review and approval. Upon approval of the plans and completion of improvements, the applicant shall provide the Department of Public Works evidence of completed improvements. **Timing:** Improvements shall be completed prior to recordation of the Final Map for Unit 2. **Monitoring:** The Department of Public Works shall review the improvement plans for conformance with this mitigation measure. Upon approval of the improvement plans, a decision of approval shall be issued to the applicant. Following final inspection, the Department of Public Works shall provide the applicant with a letter of acceptance for the completed improvements. **Traffic Study References:** Table 38 and Figure 45.

M-TR-28b **AIRWAY ROAD/SIEMPRE VIVA ROAD INTERSECTION IMPROVEMENTS [DPW] [Final Map]**

Intent: To mitigate direct impacts to the on-site intersection of Airway Road/Siempre Viva Road that would occur with Phase 3 of the proposed Project. **Description of Requirement:** The Project applicant or Master Developer shall improve the intersection of Airway Road/Siempre Viva Road to accommodate the following lane configurations:

- One (1) eastbound shared left-right lane;
- One (1) northbound shared left-through lane;
- One (1) northbound through lane; and
- One (1) southbound shared through-right lane.

Documentation: The applicant shall prepare improvement plans for roadway improvements and shall submit the plans to the Department of Public Works for review and approval. Upon approval of the plans and completion of improvements, the applicant shall provide the Department of Public Works evidence of completed improvements. **Timing:** Improvements shall be completed prior to recordation of the Final Map for Unit 3. **Monitoring:** The Department of Public Works shall review the improvement plans for conformance with this mitigation measure. Upon approval of the improvement plans, a decision of approval shall be issued to the applicant. Following final inspection, the Department of Public Works shall provide the applicant with a letter of acceptance for the completed improvements. **Traffic Study References:** Table 38 and Figure 46.

M-TR-28c **AIRWAY ROAD/SIEMPRE VIVA ROAD INTERSECTION IMPROVEMENTS [DPW] [Final Map]**

Intent: To mitigate direct impacts to the on-site intersection of Airway Road/Siempre Viva Road that would occur with buildout of the proposed Project. **Description of Requirement:** The Project applicant or Master Developer shall assure the construction of a traffic signal at the intersection of Airway Road/Siempre Viva Road. In addition, the Project applicant or Master Developer shall improve the intersection of Airway Road/Siempre Viva Road to accommodate the following lane configurations:

- One (1) eastbound shared left-right lane;
- One (1) northbound left turn lane;

- Two (2) northbound through lanes;
- One (1) southbound through lane; and
- One (1) southbound shared through-right lane.

Documentation: The applicant shall prepare improvement plans for roadway improvements and shall submit the plans to the Department of Public Works for review and approval. Upon approval of the plans and completion of improvements, the applicant shall provide the Department of Public Works evidence of completed improvements. **Timing:** Improvements shall be completed prior to recordation of the Final Map for Unit 4. **Monitoring:** The Department of Public Works shall review the improvement plans for conformance with this mitigation measure. Upon approval of the improvement plans, a decision of approval shall be issued to the applicant. Following final inspection, the Department of Public Works shall provide the applicant with a letter of acceptance for the completed improvements. **Traffic Study References:** Table 38 and Figure 47.

M-TR-29a **SIEMPRE VIVA/ALTA ROAD INTERSECTION IMPROVEMENTS [DPW] [Final Map]**

Intent: To mitigate direct impacts to the on-site intersection of Siempre Viva/Alta Road that would occur with Phase 1 of the proposed Project. **Description of Requirement:** The Project applicant or Master Developer shall assure the construction of stop signs at all approaches at the intersection of Siempre Viva Road/Alta Road. In addition, the Project applicant or Master Developer shall improve the intersection to accommodate the following lane configurations:

- One (1) eastbound shared left-through -right lane;
- One (1) westbound shared left-through-right lane;
- One (1) northbound shared left-through-right lane; and
- One (1) southbound shared left-through-right lane.

Documentation: The applicant shall prepare improvement plans for roadway improvements and shall submit the plans to the Department of Public Works for review and approval. Upon approval of the plans and completion of improvements, the applicant shall provide the Department of Public Works evidence of completed improvements. **Timing:** Improvements shall be completed prior to recordation of the Final Map for Unit 1. **Monitoring:** The Department of Public Works shall review the improvement plans for conformance with this mitigation measure. Upon approval of the improvement plans, a decision of approval shall be issued to the applicant. Following final inspection, the Department of Public Works shall provide the applicant with a letter of acceptance for the completed improvements. **Traffic Study References:** Table 38 and Figure 44.

M-TR-29b **SIEMPRE VIVA/ALTA ROAD INTERSECTION IMPROVEMENTS [DPW] [Final Map]**

Intent: To mitigate direct impacts to the on-site intersection of Siempre Viva/Alta Road that would occur with Phases 1 and 2 of the proposed Project. **Description of Requirement:** The Project applicant or Master Developer shall improve the intersection to accommodate the following lane configurations:

- One (1) eastbound shared left-through lane;
- One (1) eastbound shared through-right lane;
- One (1) westbound shared left-through lane;
- One (1) westbound shared through-right lane;
- One (1) northbound shared left-through-right lane; and

- One (1) southbound shared left-through-right lane.

Documentation: The applicant shall prepare improvement plans for roadway improvements and shall submit the plans to the Department of Public Works for review and approval. Upon approval of the plans and completion of improvements, the applicant shall provide the Department of Public Works evidence of completed improvements. **Timing:** Improvements shall be completed prior to recordation of the Final Map for Unit 2. **Monitoring:** The Department of Public Works shall review the improvement plans for conformance with this mitigation measure. Upon approval of the improvement plans, a decision of approval shall be issued to the applicant. Following final inspection, the Department of Public Works shall provide the applicant with a letter of acceptance for the completed improvements. **Traffic Study References:** Table 38 and Figure 45.

M-TR-29c **SIEMPRE VIVA/ALTA ROAD INTERSECTION IMPROVEMENTS [DPW] [Final Map]**

Intent: To mitigate direct impacts to the on-site intersection of Siempre Viva/Alta Road that would occur with Phases 1 through 3 of the proposed Project. **Description of Requirement:** The Project applicant or Master Developer shall assure the construction of stop signs along the northbound and southbound approaches at the intersection of Siempre Viva Road/Alta Road (i.e., two-way stop sign control), and shall construct an acceleration lane for vehicles making a northbound left and southbound left turn from Alta Road onto eastbound and westbound Siempre Vive Road. In addition, the Project applicant or Master Developer shall improve the intersection to accommodate the following lane configurations:

- One (1) eastbound left turn lane;
- Two (2) eastbound through lanes;
- One (1) eastbound right turn lane;
- One (1) westbound shared left-through lane;
- One (1) westbound shared through-right lane;
- Two (2) northbound left turn lanes;
- One (1) northbound shared through-right lane; and
- One (1) southbound left turn lane; and
- One (1) southbound shared through-right lane.

Documentation: The applicant shall prepare improvement plans for roadway improvements and shall submit the plans to the Department of Public Works for review and approval. Upon approval of the plans and completion of improvements, the applicant shall provide the Department of Public Works evidence of completed improvements. **Timing:** Improvements shall be completed prior to recordation of the Final Map for Unit 3. **Monitoring:** The Department of Public Works shall review the improvement plans for conformance with this mitigation measure. Upon approval of the improvement plans, a decision of approval shall be issued to the applicant. Following final inspection, the Department of Public Works shall provide the applicant with a letter of acceptance for the completed improvements. **Traffic Study References:** Table 38 and Figure 46.

M-TR-29d **SIEMPRE VIVA/ALTA ROAD INTERSECTION IMPROVEMENTS [DPW] [Final Map]**

Intent: To mitigate direct impacts to the on-site intersection of Siempre Viva/Alta Road that would occur with Phases 1 through 4 of the proposed Project. **Description of Requirement:** The Project applicant or Master Developer shall assure the construction

of a traffic signal. In addition, the Project applicant or Master Developer shall improve the intersection to accommodate the following lane configurations:

- One (1) eastbound left turn lane;
- One (1) eastbound through lane;
- One (1) eastbound shared through-right lane;
- One (1) westbound left turn lane;
- One (1) westbound through lane;
- One (1) westbound shared through-right lane;
- Two (2) northbound left turn lanes;
- One (1) northbound shared through-right lane; and
- One (1) southbound left turn lane; and
- One (1) southbound shared through-right lane.

Documentation: The applicant shall prepare improvement plans for roadway improvements and shall submit the plans to the Department of Public Works for review and approval. Upon approval of the plans and completion of improvements, the applicant shall provide the Department of Public Works evidence of completed improvements. **Timing:** Improvements shall be completed prior to recordation of the Final Map for Unit 4. **Monitoring:** The Department of Public Works shall review the improvement plans for conformance with this mitigation measure. Upon approval of the improvement plans, a decision of approval shall be issued to the applicant. Following final inspection, the Department of Public Works shall provide the applicant with a letter of acceptance for the completed improvements. **Traffic Study References:** Table 38 and Figure 47.

M-TR-30 **TRAFFIC CONTROL PLAN [DPW] [Final Map]**

Intent: To preclude significant traffic impacts during each phase of proposed construction activities. **Description of Requirement:** The Project applicant or Master Developer shall obtain a traffic control permit from the County Department of Public Works prior to each phase of construction. **Documentation:** The required Traffic Control Permit would serve as documentation of the applicant's adherence to this requirement. **Timing:** Prior to issuance of grading or improvement plans for each unit authorizing construction within or adjacent to existing roadways. **Monitoring:** The Department of Public Works shall ensure that the applicant has obtained a Traffic Control Permit prior to issuance of any permits to construct improvements within or adjacent to existing roadways.

M-TR-31 The Project applicant or Master Developer would be required to pay fees in accordance with the San Diego County TIF Ordinance. . Payment of TIF fees would reduce Project impacts to the roadway segment of Otay Mesa Road between Enrico Fermi Derive and Alta Road to less than significant levels.

M-TR-32 The Project applicant or Master Developer would be required to pay fees in accordance with the San Diego County TIF Ordinance. Payment of TIF fees would reduce Project impacts to the intersection of Otay Mesa Road/Vann Centre Boulevard to less than significant levels.

M-TR-33 The Project applicant or Master Developer would be required to pay fees in accordance with the San Diego County TIF Ordinance. Payment of TIF fees would reduce Project impacts to the intersection of Otay Mesa Road/Alta Road to less than significant levels.

M-TR-34 **AIRWAY ROAD/SANYO AVENUE INTERSECTION IMPROVEMENTS [DPW] [Final Map]**

Intent: To mitigate significant direct impacts to the intersection of Airway Road/Sanyo Avenue that would occur in the Cumulative (2020) With SR-905 Phases 1A and 1B conditions. **Description of Requirement:** The Project applicant or Master Developer shall improve or agree to improve and provide security for the intersection of Airway Road/Sanyo Avenue as recommended by the Traffic Impact Study (refer to Traffic Impact Study Figure 51) and in consultation with the City of San Diego. Required improvements for the intersection of Airway Road/Sanyo Avenue shall include the following, or any other configuration acceptable to the City of San Diego and the County of San Diego and that achieves an acceptable level of service:

- Installation of a traffic signal;
- One (1) eastbound shared left-through-right lane;
- One (1) westbound left turn lane;
- One (1) westbound through lane;
- One (1) westbound right turn lane;
- One (1) northbound left turn lane;
- One (1) northbound shared through-right turn lane;
- One (1) southbound shared left-through lane; and
- One (1) southbound right turn lane.

It should be noted that the mitigation proposed for project impacts to this intersection are subject to approval by the City of San Diego and therefore may not be feasible. In addition, the required improvements also may not be feasible due to financial or right-of-way issues. In the event the improvements are determined to be infeasible, impacts would remain significant and unmitigable. **Documentation:** The Project applicant or Master Developer shall submit documentation from the City of San Diego demonstrating the requirements of this condition have been completed. **Timing:** The improvements shall be fully constructed to the satisfaction of the City of San Diego prior to the recordation of the Final Map for Unit 4. **Monitoring:** The Director of Planning and Land Use shall review the evidence provided by the applicant for compliance with this mitigation measure. Following review, the Director of Planning and Land Use shall provide the applicant with a letter of clearance. **Traffic Study References:** Section VIII and Figure 53.

M-TR-35 The Project applicant or Master Developer would be required to pay fees in accordance with the San Diego County TIF Ordinance. Payment of TIF fees would reduce Project impacts to the intersection of Airway Road/Paseo de las Americas to less than significant levels.

2.7.6 Conclusion

The following provides a summary of the significance of each impact identified above under Section 2.7.4 after incorporation of the mitigation measures identified under 2.7.5.

Significant Direct Impact TR-1: Implementation of Mitigation Measure M-TR-1 would ensure that Phase 1 of the proposed Project is not implemented until the SR-905 Phase 1A and 1B improvements are in place. Phase 1A and 1B improvements would result in the completion of portions of the SR-

905 facility, which would generally improve traffic operations within the study area. Once these improvements are complete, Project traffic would be diverted from the roadway segment of Interim SR-905 (Otay Mesa Road) between La Media and Piper Ranch Road and the Project's direct impacts to this roadway segment would be reduced to less than significant levels under all Project phases.

Significant Direct Impact TR-2: Implementation of Mitigation Measure M-TR-1a would improve the LOS on the roadway segments of Otay Mesa Road between Sanyo Avenue and Enrico Fermi Drive from LOS E to LOS D in the Existing Plus Project Phase 1 condition, which would reduce near-term Project impacts to these roadway segments to less than significant levels. Implementation of Mitigation Measure M-TR-1b would improve the LOS on the roadway segments of Otay Mesa Road between Sanyo Avenue and Enrico Fermi Drive from LOS F to LOS B in the Existing Plus Project Phases 1 and 2, Existing Plus Project Phases 1 through 3 conditions, and Existing Plus Project Phases 1 through 4 conditions, which would reduce Project impacts to these roadway segments to less than significant levels.

Significant Direct Impact TR-3: Implementation of Mitigation Measure M-TR-1 (as required by Mitigation Measure M-TR-3) would ensure that Phase 1 of the proposed Project is not implemented before the planned SR-905 Phase 1A is open to traffic. Once the planned improvements to this freeway segment are implemented, the segment of SR-906 between Otay Mesa Road and Siempre Viva Road would be eliminated. Therefore, implementation of Mitigation M-TR-3 would reduce the Project's direct impacts to this freeway segment to less than significant levels.

Significant Direct Impact TR-4: Implementation of Mitigation Measure M-TR-1 (as required by Mitigation Measure M-TR-4) would ensure that Phases 3 and 4 of the proposed Project are not implemented before the planned SR-905 Phase 1A and Phase 1B are open to traffic. Phase 1A and 1B improvements would result in the completion of a portion of the SR-905 facility, which would generally improve traffic operations within the study area. Once these improvements are complete, the roadway segments of Otay Mesa Road between Heritage Road and Cactus Road are projected to operate at LOS B with the addition of traffic from Phase 3, Phase 4, and cumulative traffic from other projects in the study area. Therefore, implementation of Mitigation Measure M-TR-4 would reduce to less than significant levels the Project's direct impacts to Otay Mesa Road between Heritage Road and Cactus Road in the Existing Plus Project Phases 1 through 3 and Existing Plus Project Buildout conditions.

Significant Direct Impact TR-5: Implementation of Mitigation Measure M-TR-1 (as required by Mitigation Measure M-TR-5) would ensure that Phases 3 and 4 of the proposed Project are not implemented before the planned SR-905 Phase 1A and 1B are open to traffic. Phase 1A and 1B improvements would result in the completion of a portion of the SR-905 facility, which would generally improve traffic operations within the study area. Once these improvements are complete, the roadway segment of Otay Mesa Road between Cactus Road and Britannia Boulevard are projected to operate at LOS B with the addition of traffic from Phase 3, Phase 4, and cumulative traffic from other projects in the study area. Therefore, implementation of Mitigation Measure M-TR-5 would reduce to less than significant levels the Project's direct impacts to Otay Mesa Road between Cactus Road and Britannia Boulevard in the Existing Plus Project Phases 1 through 3 and Existing Plus Project Buildout conditions.

Significant Direct Impact TR-6: Implementation of Mitigation Measure M-TR-6 would improve the projected LOS on the roadway segment of Airway Road from Airway Place to Alta Road from LOS

E to LOS A with implementation of Phase 3 of the proposed Project, and from LOS F to LOS B with implementation of Phase 4 of the proposed Project. Implementation of the required mitigation would reduce Project impacts to the segment of Airway Road between Airway Place and Alta Road to less than significant levels.

Significant Direct Impact TR-7: Implementation of Mitigation Measure M-TR-7a would improve the LOS on Siempre Viva Road between Enrico Fermi Drive and Alta Road from LOS E to LOS A in the Existing Plus Project Phases 1 through 3 condition. Implementation of Mitigation Measure M-TR-7b would improve the LOS on this segment from LOS F to LOS B in the Existing Plus Project Phases 1 through 4 condition. Implementation of the required mitigation would reduce Project impacts to the segment of Siempre Viva Road between Siempre Viva Road and Alta Road to less than significant levels.

Significant Direct Impact TR-8: Implementation of Mitigation Measure M-TR-1 (as required by Mitigation Measure M-TR-8) would ensure that Phases 3 and 4 of the proposed Project are not implemented until the SR-905 Phase 1A and 1B improvements are in place. Phase 1A and 1B improvements would result in the completion of portions of the SR-905 facility, which would generally improve traffic operations within the study area. Once these improvements are complete, Project traffic would be diverted from the roadway segment of La Media Road between Saint Andrews Avenue and Airway Road and the Project's direct impacts to this roadway segment would be reduced to less than significant levels.

Significant Direct Impact TR-9: Implementation of Mitigation Measure M-TR-1, as required by Mitigation Measure M-TR-9, would ensure that Phase 3 and 4 of the proposed Project are not implemented before the planned SR-905 Phase 1A and 1B are open to traffic. Phase 1A and 1B improvements would result in the completion of portions of the SR-905 facility, which would generally improve traffic operations within the study area. Once these improvements are complete, Project traffic would be diverted from the roadway segment of La Media Road between Airway Road and Siempre Viva Road and the Project's direct impacts to this roadway segment would be reduced to less than significant levels.

Significant Direct and Cumulative Impact TR-10: Implementation of Mitigation Measure M-TR-10 would improve the LOS along the roadway segment of Enrico Fermi Drive from Otay Mesa Road to Airway Road from LOS E to LOS B with implementation of Phase 3, buildout of the proposed Project, and under cumulative (2020) conditions. Therefore, implementation of Mitigation Measure M-TR-10 would reduce to less than significant levels the Project's direct and cumulative impacts to Enrico Fermi Drive from Otay Mesa Road to Airway Road in the Existing Plus Project Phases 1 through 3, Existing Plus Project Buildout, and under cumulative (2020) conditions.

Significant Direct Impact TR-11: Implementation of Mitigation Measure M-TR-1, as required by Mitigation Measure M-TR-11, would ensure that Phase 4 of the proposed Project is not implemented before the planned SR-905 Phase 1A and 1B are open to traffic. Phase 1A and 1B improvements would result in the completion of portions of the SR-905 facility, which would generally improve traffic operations within the study area. Once these improvements are complete, Project traffic would be diverted from the roadway segment of Interim SR-905 (Otay Mesa Road) from Britannia Boulevard to La Media Road and the Project's direct impacts to this roadway segment would be reduced to less than significant levels.

Significant Direct Impact TR-12: Implementation of Mitigation Measure M-TR-1, as required by Mitigation Measure M-TR-12, would ensure that Phase 4 of the proposed Project is not implemented before the planned SR-905 Phase 1A and 1B are open to traffic. Phase 1A and 1B improvements would result in the completion of portions of the SR-905 facility, which would generally improve traffic operations within the study area. Once these improvements are complete, Project traffic would be diverted from the roadway segment of Interim SR-905 (Otay Mesa Road) from Piper Ranch Road to SR-125, and the Project's direct impacts to this roadway segment would be reduced to less than significant levels.

Significant Direct Impact TR-13: Implementation of Mitigation Measure M-TR-13a would improve the LOS at the intersection of Siempre Viva Road/Paseo de las Americas from LOS F during the PM peak hour to LOS C in the PM peak hour under the Existing Plus Project Phase 1 condition and would improve the PM peak hour LOS from LOS F to LOS D in the Existing Plus Project Phases 1 and 2 condition. Implementation of Mitigation Measure M-TR-13b would improve the PM peak hour LOS from LOS F to LOS D in the Existing Plus Project Phases 1 through 3 and the Existing Plus Project Phases 1 through 4 conditions. Implementation of the required mitigation would reduce direct impacts from Phases 1 and 2, Phases 1 through 3, and buildout of the proposed Project to less than significant levels. However, the intersection is located in the City of San Diego and is outside the jurisdictional authority of the Lead Agency for this SEIR (San Diego County). As such, it cannot be assured by San Diego County that the mitigation measure will be implemented, and the Project's direct impacts to the intersection of Siempre Viva Road/Paseo de las Americas are evaluated as significant and unmitigable. The applicant shall be required to make a good faith effort in implementing the required mitigation in order to preclude these significant and unmitigable impacts.

Significant Direct and Cumulative Impact TR-14: Implementation of Mitigation Measure M-TR-1, as required by Mitigation Measure M-TR-14, would ensure that Phases 2 through 4 of the proposed Project are not implemented before the planned SR-905 Phase 1B is open to traffic. Phase 1B improvements would result in the completion of portions of the SR-905 facility, which would generally improve traffic operations within the study area. Once these improvements are complete, the intersection of Otay Mesa Road/Interim SR-905 Connector would be eliminated. Project impacts to this intersection would therefore be eliminated with completion of the SR-905 Phase 1B improvements.

Significant Direct Impact TR-15: Implementation of Mitigation Measure M-TR-15 would improve the intersection of Otay Mesa Road/Sanyo Avenue from LOS E to LOS B in the PM peak hour under Existing Plus Phases 1 and 2 conditions, would improve the PM peak hour LOS from LOS F to LOS F to LOS B in the Existing Plus Project Phases 1 through 3 condition, and would improve the PM peak hour LOS from LOS F to LOS C under the Existing Plus Project Phases 1 through 4 condition. Implementation of the required mitigation would therefore reduce Project impacts to the intersection of Otay Mesa Road/Sanyo Avenue to less than significant levels.

Significant Direct Impact TR-16: Implementation of Mitigation Measure M-TR-16a would improve the AM peak hour LOS at the intersection of Otay Mesa Road/Enrico Fermi Drive from LOS E to LOS A in the Existing Plus Project Phases 1 and 2 condition. Implementation of Mitigation Measure M-TR-16b would improve the AM peak hour LOS from LOS F to LOS B and the PM peak hour LOS from LOS F to LOS C under Existing Plus Project Phases 1 through 3 conditions. Implementation of Mitigation Measure M-TR-16b also would improve the AM and PM peak hour LOS from LOS F to LOS C. Therefore, implementation of the required mitigation would reduce the

Project's direct impacts to the intersection of Otay Mesa Road/Enrico Fermi Drive to less than significant levels.

Significant Direct Impact TR-17: Implementation of Mitigation Measure M-TR-17a would improve the AM peak hour LOS at the intersection of Siempre Viva/Michael Faraday from LOS F to LOS B, and would improve the PM peak hour LOS from LOS E to LOS B in the Existing Plus Project Phases 1 and 2 condition. Implementation of Mitigation Measure M-TR-17a would improve the AM and PM peak hour LOS from LOS F to LOS B in the Existing Plus Project Phases 1 through 3 conditions and under Existing Plus Project Phases 1 through 4 conditions. Implementation of the required mitigation would reduce the Project's direct impacts to the intersection of Siempre Viva/Michael Faraday to less than significant levels. Implementation of Mitigation Measure M-TR-17b would improve the intersection from LOS F to LOS A in the AM peak hour and from LOS F to LOS B in the PM peak hour. However, the intersection is located in the City of San Diego and is outside the jurisdictional authority of the Lead Agency for this SEIR (San Diego County). As such, it cannot be assured by San Diego County that the mitigation measure will be implemented, and the Project's direct impacts to the intersection of Siempre Viva Road/Michael Faraday are evaluated as significant and unmitigable. The applicant shall be required to make a good faith effort in implementing the required mitigation in order to preclude these cumulatively significant and unmitigable impacts.

Significant Direct and Cumulative Impact TR-18: Implementation of Mitigation Measure M-TR-1, as required by Mitigation Measure M-TR-18, would ensure that Phases 3 and 4 of the proposed Project are not implemented before the planned SR-905 Phase 1A and 1B are open to traffic. Phase 1A and 1B improvements would result in the completion of portions of the SR-905 facility, which would generally improve traffic operations within the study area. Once these improvements are complete, the LOS at the intersection of Interim SR-905 (Otay Mesa Road)/Heritage Road would improve from LOS F to LOS C in the AM and PM peak hours, and the Project's direct impacts to this intersection would be reduced to less than significant levels.

Significant Direct Impact TR-19: Implementation of Mitigation Measure M-TR-1 (as required by Mitigation Measure M-TR-19) would ensure that Phases 2, 3, and 4 of the proposed Project are not implemented before the planned SR-905 Phase 1B is open to traffic. Phase 1B improvements would result in the completion of portions of the SR-905 facility, which would generally improve traffic operations within the study area. Once these improvements are complete, the intersection of Interim SR-905 (Otay Mesa Road)/Cactus Road is projected to operate at LOS A in the AM peak hour and LOS B in the PM peak hour. Therefore, implementation of Mitigation Measure M-TR-19 would reduce to below a level of significance the Project's direct impact to the Interim SR-905 (Otay Mesa Road)/Cactus Road intersection in the Existing Plus Project Phases 1 through 3 and Existing Plus Project Buildout conditions.

Significant Direct Impact TR-20: Implementation of Mitigation Measure M-TR-1 (as required by Mitigation Measure M-TR-20) would ensure that Phases 3 and 4 of the proposed Project are not implemented before the planned SR-905 1A and 1B are open to traffic. Phase 1A and 1B improvements would result in the completion of portions of the SR-905 facility, which would generally improve traffic operations within the study area. Once these improvements are complete, the intersection of Interim SR-905 (Otay Mesa Road)/SR-125 Northbound Ramp would operate at LOS A during both peak hours, and Project-related impacts to this intersection would be reduced to a level below significance.

Significant Direct Impact TR-21: Implementation of Mitigation Measure M-TR-21a would improve the LOS at the intersection of Airway Road/Enrico Fermi Drive from LOS E to LOS C during both peak hours under Existing Plus Project Phases 1 through 3 conditions. Implementation of Mitigation Measure M-TR-21b would improve the LOS from LOS F to LOS C in the AM peak hour and from LOS F to LOS D in the PM peak hour under Existing Plus Project Phases 1 through 4 conditions. Therefore, implementation of the required mitigation would reduce Project-related impacts to the intersection of Airway Road/Enrico Fermi Drive to less than significant levels.

Significant Direct Impact TR-22: Implementation of Mitigation Measure M-TR-22a would improve the LOS at the intersection of Siempre Viva Road/Enrico Fermi Drive from LOS F to LOS B during the AM peak hour and from LOS F to LOS C in the PM peak hour under Existing Plus Project Phases 1 through 3 conditions. Implementation of Mitigation Measure M-TR-22b would improve the LOS from LOS F to LOS B during both peak hours under Existing Plus Project Phases 1 through 4 conditions. Therefore, implementation of the required mitigation would reduce Project-related impacts to the intersection of Siempre Viva Road/Enrico Fermi Drive to less than significant levels.

Significant Direct Impact TR-23: Implementation of Mitigation Measure M-TR-1 (as required by Mitigation Measure M-TR-23) would ensure that Phase 4 of the proposed Project is not implemented before the planned SR-905 Phase 1A and 1B are open to traffic. Phase 1A and 1B improvements would result in the completion of portions of the SR-905 facility, which would generally improve traffic operations within the study area. Once these improvements are complete, the intersection of Interim SR-905 (Otay Mesa Road)/Britannia Boulevard is projected to operate at LOS A during the AM peak hour and LOS B during the PM peak hours with the addition of traffic from Phase 4 and cumulative traffic from other projects in the study area. Therefore, implementation of Mitigation Measure M-TR-23 would reduce to less than significant levels the Project's direct impacts to the Interim SR-905 (Otay Mesa Road)/ Britannia Boulevard intersection in Existing Plus Project Buildout condition.

Significant Direct Impact TR-24: Implementation of Mitigation Measure M-TR-1 (as required by Mitigation Measure M-TR-24) would ensure that Phase 4 of the proposed Project is not implemented before the planned SR-905 facility 1A and 1B are open to traffic. Phase 1A and 1B improvements would result in the completion of portions of the SR-905 facility, which would generally improve traffic operations within the study area. Once these improvements are complete, Project traffic would be diverted from the intersection of Interim SR-905 (Otay Mesa Road)/La Media Road, and Project-related impacts to this intersection would be eliminated.

Significant Direct Impact TR-25: Implementation of Mitigation Measure M-TR-1 (as required by Mitigation Measure M-TR-25) would ensure that Phase 4 of the proposed Project is not implemented before the planned SR-905 Phase 1A and 1B are open to traffic. Phase 1A and 1B improvements would result in the completion of portions of the SR-905 facility, which would generally improve traffic operations within the study area. Once these improvements are complete, Project traffic would be diverted from the intersection of Interim SR-905 (Otay Mesa Road)/Piper Ranch Road, and Project-related impacts to this intersection would be eliminated.

Significant Direct Impact TR-26: Implementation of Mitigation Measure M-TR-1 (as required by Mitigation Measure M-TR-26) would ensure that Phases 4 of the proposed Project is not implemented before the planned SR-905 facility Phase 1A and 1B are open to traffic. Phase 1A and 1B improvements would result in the completion of portions of the SR-905 facility, which would

generally improve traffic operations within the study area. Once these improvements are complete, the intersection of Otay Mesa Road/SR-125 Southbound Ramp would operate at LOS B during the AM peak hour and LOS A during the PM peak, and Project-related impacts to this intersection would be reduced to a level below significance.

Significant Direct Impact TR-27: Implementation of Mitigation Measure M-TR-27a would ensure that the intersection of Airway Road/Alta Road operates at LOS B during both peak hours under Existing Plus Project Plus Phase 1 conditions. Implementation of Mitigation Measure M-TR-27b would ensure that the intersection of Airway Road/Alta Road operates at LOS D in the AM peak hour and LOS C in the PM peak hour under Existing Plus Project Plus Phases 1 and 2 conditions. Implementation of Mitigation Measure M-TR-27c would ensure that the intersection of Airway Road/Alta Road operates at LOS D in the AM peak hour and LOS C in the PM peak hour under Existing Plus Project Phases 1 through 3 conditions. Implementation of Mitigation Measure M-TR-27d would ensure that the intersection of Airway Road/Alta Road operates at LOS A in the AM peak hour and LOS B in the PM peak hour under Existing Plus Project Phases 1 through 4 conditions. Therefore, implementation of the required mitigation would reduce Project impacts at the intersection of Airway Road/Alta Road to less than significant levels.

Significant Direct Impact TR-28: Implementation of Mitigation Measure M-TR-28a would ensure that the intersection of Airway Road/Siempre Viva Road operates at LOS B in the AM peak hour and LOS C in the PM peak hour under Existing Plus Project Phases 1 and 2 conditions. Implementation of Mitigation Measure M-TR-28b would ensure that the intersection of Airway Road/Siempre Viva Road operates at LOS D during both peak hours under Existing Plus Project Phases 1 through 3 conditions. Implementation of Mitigation Measure M-TR-28c would ensure that the intersection of Airway Road/Siempre Viva Road operates at LOS C during both peak hours under Existing Plus Project Phases 1 through 4 conditions. Therefore, implementation of the required mitigation would ensure that Project impacts to the intersection of Airway Road/Siempre Viva Road are reduced to less than significant levels.

Significant Direct Impact TR-29: Implementation of Mitigation Measure M-TR-29a would ensure that the intersection of Siempre Viva/Alta Road operates at LOS B during both peak hours under Existing Plus Project Phase 1 conditions. Implementation of Mitigation Measure M-TR-29b would ensure that the intersection of Siempre Viva/Alta Road operates at LOS C during the AM peak hour and LOS B during the PM peak hour under Existing Plus Project Phases 1 and 2 conditions. Implementation of Mitigation Measure M-TR-29c would ensure that the intersection of Siempre Viva/Alta Road operates at LOS D or better during both peak hours under Existing Plus Project Phases 1 through 3 conditions. Implementation of Mitigation Measure M-TR-29d would ensure that the intersection of Siempre Viva/Alta Road operates at LOS A during the AM peak hour and LOS C during the PM peak hour under Existing Plus Project Phases 1 through 4 conditions. Therefore, implementation of the required mitigation would ensure that Project impacts to the intersection of Siempre Viva Road/Alta Road are reduced to less than significant levels.

Significant Direct Impact TR-30: Implementation of Mitigation Measure M-TR-30 would ensure that significant impacts resulting from construction activities are reduced to less than significant levels.

Significant Cumulative Impact TR-31: Mandatory payment of TIF fees would reduce the Project's cumulative impacts to the roadway segment of Otay Mesa Road between Enrico Fermi Drive and Alta Road to less than significant levels.

Significant Cumulative Impact TR-32: Mandatory payment of TIF fees would reduce the Project's cumulative impacts to the intersection of Otay Mesa Road/Vann Centre Boulevard to less than significant levels.

Significant Cumulative Impact TR-33: Mandatory payment of TIF fees would mitigate the Project's cumulative impacts to the intersection of Otay Mesa Road/Alta Road to a level below significant.

Significant Direct Impact TR-34: Implementation of Mitigation Measure M-TR-34, if accepted by the City of San Diego, would ensure that the intersection of Airway Road/Sanyo Avenue operates at LOS C during both peak hours in the Cumulative (2020) With SR-905 Phase 1A and 1B condition. However, improvements to the intersection of Airway Road/Sanyo Avenue would be subject to city approval and therefore may not be feasible. In the event that the City of San Diego does not allow for improvements to this roadway segment, Project impacts would be significant and unmitigable.

Significant Cumulative Impact TR-35 Mandatory payment of TIF fees would mitigate the Project's cumulative impacts to the intersection of Airway Road/Paseo De Las Americas to a level below significant.

Table 2.7-4 EXISTING DAILY TRAFFIC VOLUMES FOR KEY ROADWAY SEGMENTS WITHIN PROJECT STUDY AREA

ROADWAY SEGMENT	CLASS	CAPACITY (LOS E)	ADT	V/C	LOS
Interim SR-905 (Otay Mesa Road)					
Heritage Rd to Cactus Rd	6P	60,000	**64,299**	**1.07**	**F** (d)
Cactus Rd to Britannia Blvd	6P	60,000	**71,080**	**1.18**	**F** (d)
Britannia Blvd to La Media Rd	6P	60,000	**58,999**	**0.98**	**E** (d)
La Media Rd to Piper Ranch Road	4M(m)	45,000 (a)	**44,523**	**0.99**	**E** (d)
Piper Ranch Rd to SR-125	6P	57,000	43,109	0.76	C
SR-905					
Otay Mesa Rd to Siempre Vive Rd	4M	40,000	**37,823**	**0.95**	**E**
South of Siempre Viva Rd	4-Fwy	(c)	28,000	0.32	A
SR-125					
North of Otay Mesa Road	4-Fwy	(c)	30,000	0.33	A
Otay Mesa Road (Old Otay Mesa Road)					
SR-125 to interim SR-905 Connector	4M(m)	47,000 (a)	16,686	0.36	A
Interim SR-905 Connector to Harvest Rd	4M(m)	47,000 (a)	9,738	0.21	A
Harvest Rd to Sanyo Ave	4M	37,000	8,224	0.22	A
Sanyo Ave to Enrico Fermi Dr	LC	16,200	9,133	0.56	D
Airway Road					
Sanyo Ave to Paseo de Las Americas	4M	40,000	5,649	0.14	A
Paseo de las Americas to Michael Faraday	4M	37,000	4,533	0.12	A
Michael Faraday to Enrico Fermi Dr	LC	16,200	2,918	0.18	B
Enrico Fermi Drive to Airway Place	4C	34,200	1,160	0.03	A
La Media Road					
Interim SR-905 to St. Andrews	4C	30,000	15,225	0.51	C
St. Andrews to Airway Road	2C	10,000	**15,225**	**1.52**	**F**
Airway Road to Siempre Viva Road	2C	10,000	13,968	**1.40**	**F**
Siempre Viva Road					
SR-905 to Paseo Las Americas	6P	60,000	26,653	0.44	B
Paseo De Las Americas to Michael Faraday	4C	30,000	9,886	0.33	A
Michael Faraday to Enrico Fermi Dr	4C	30,000	6,442	0.21	A
Enrico Fermi Drive to Airway Pl	LC	16,200	830	0.05	A
Heritage Road					
Sikorsky Street to Interim SR-905 (Otay Mesa Road)	4C(m)	35,000 (b)	9,842	0.28	A
Britannia Boulevard					
Interim SR-905 (Otay Mesa Road) to Airway Road	4C	15,000	7,959	0.53	C
Sanyo Avenue					
Otay Mesa Road to Airway	4C	30,000	2,666	0.09	A
Enrico Fermi Drive					
Old Otay Mesa Road to Airway	TC	19,000	2,681	0.14	A
Airway to Siempre Viva	4M	40,000	7,110	0.18	A

LOS= Level of Service; ADT= Average Daily Trips; V/C=Volume to Capacity; 4-Fwy = 4-Lane Freeway; 6P = 6-lane Prime Arterial; 4M = 4-lane Major Arterial; 4M(m) = Modified 4-Lane Road; 4C = 4-Lane Collector; 4C(m) = Modified 4-Lane Collector; 2C = 2-lane Collector; LC = Light Collector; TC = Town Collector.

(a) Additional lanes may be provided to accommodate turning movements and freeway access; hence the roadway capacity was assumed to be 45,000 for the City or 47,000 ADT for the County at LOS E (half-way between a 4-lane Major & 6-Lane Prime Arterial).

(b) This segment of Heritage Road provides 2 Northbound through lanes, 1 Southbound left turn lane, 1 Southbound through lane, 2 Southbound right turn lanes, and a painted median; hence, the roadway capacity was assumed to be 35,000 ADT at LOS E (half-way between a 4-lane Collector and a 4-lane Major Arterial).

(c) Capacity based on Caltrans District 11 & HCM procedures, See Appendix K to Traffic Study for LOS calculations

(d) The Arterial Roadway Segment analysis found that these segments operate acceptably during the AM/PM peak hours.

Source: Darnell & Associates, Inc, (September 20, 2010).

Table 2.7-5 EXISTING CONDITIONS ARTERIAL LOS SUMMARY

INTERSECTION	DIRECTION OF TRAVEL	AM PEAK HOUR		PM PEAK HOUR	
		SPEED (MPH)	LOS	SPEED (MPH)	LOS
Interim SR-905 – Heritage Rd to Cactus Rd	Eastbound	35.2	A	29.3	B
	Westbound	27.2	C	24.4	C
Interim SR-905 – Cactus Rd to Britannia Blvd	Eastbound	38.8	A	36.1	A
	Westbound	38.9	A	38.3	A
Interim SR-905 – Britannia Blvd to La Media Rd	Eastbound	43.0	A	41.7	A
	Westbound	44.4	A	41.9	A
Interim SR-905 – La Media Rd to Piper Ranch Rd	Eastbound	37.9	A	34.3	A
	Westbound	31.5	B	31.9	B
SR-905 – Piper Ranch Rd to SR-125	Eastbound	31.9	B	34.7	A
	Westbound	29.4	B	34.2	B

LOS = Level of Service; Speed is measured in miles per hour (mph)

Table 2.7-6 EXISTING KEY INTERSECTION LEVEL OF SERVICE SUMMARY

INTERSECTION		AM PEAK		PM PEAK	
		DELAY	LOS	DELAY	LOS
Otay Mesa Rd @ Heritage Rd (sig)		29.8	C	29.2	C
Otay Mesa Rd @ Cactus Rd (sig)		9.0	A	11.4	B
Otay Mesa Rd @ Britannia Blvd (sig)		7.3	A	16.4	B
Otay Mesa Rd @ La Media Rd (sig)		21.6	C	26.3	C
Otay Mesa Rd @ Piper Ranch Rd (sig)		9.8	A	6.0	A
Otay Mesa Rd @ SR-125 SB (sig)		11.8	B	2.9	A
Otay Mesa Rd @ SR-125 NB (sig)		0.9	A	5.7	A
Otay Mesa Rd @ SR-905 (sig)		16.2	B	21.3	C
Otay Mesa Rd @ Sanyo (sig)		4.1	A	12.6	B
Otay Mesa Rd @ Enrico Fermi (sig)		10.4	B	9.4	A
Airway Rd @ La Media Rd (AWSC)	EB	11.1	B	14.5	B
	WB	10.9	B	13.9	B
	NB	11.4	B	15.4	C
	SB	13.3	B	12.2	B
	Int.	12.3	B	13.9	B
Airway Rd @ Sanyo (AWSC)	EB	10.1	B	9.9	A
	WB	8.1	A	9.1	A
	NB	8.0	A	9.2	A
	SB	9.6	A	8.0	A
	Int.	9.3	A	9.1	A
Airway Rd @ Paseo de las Americas (OWSC)		9.7	A	10.6	B
Airway Rd @ Michael Faraday (OWSC)		9.6	A	9.6	A
Airway Rd @ Enrico Fermi Dr (sig)		6.6	A	13.0	B
Siempre Viva Rd @ La Media Rd (AWSC)	EB	8.0	A	8.4	A
	WB	7.8	A	8.5	A
	NB	7.6	A	8.4	A
	SB	9.8	A	11.0	B
	Int.	9.2	A	9.9	A
Siempre Viva @ SR-905 SB to EB Siempre Viva (sig)		7.0	A	8.5	A
Siempre Viva @ SR-905 SB to WB Siempre Viva (OWSC)		14.3	B	13.3	B
Siempre Vive @ SR-905 NB Ramp (sig)		10.8	B	11.0	B
Siempre Viva @ Paseo De Las Americas (sig)		24.7	C	40.0	D
Siempre Viva @ Michael Faraday (TWSC)	NB	14.5	B	13.2	B
	SBL-T	15.9	C	12.3	B
Siempre Viva @ Enrico Fermi (sig)		12.6	B	13.7	B

Delay in seconds per vehicle; LOS = level of service; sig = signalized; AWSC = all way stop controlled; TWSC = Two-Way Stop Controled; OWSC = one way stop controlled; Int = Intersection; NB = Northbound Approach; SB = Southbound Approach; EB = Eastbound Approach; WB = Westbound Approach; NBL = Northbound Left;
SBL-T= Shared Southbound Left-Through
Source: Darnell & Associates, Inc. (September 20, 2010)

Table 2.7-7 EXISTING INTERSECTION ILV ANALYSIS

INTERSECTION	AM PEAK		PM PEAK	
	ILV/HR	OPERATING CONDITION	ILV/HR	OPERATING CONDITION
Otay Mesa Rd (E-W) @ Heritage Rd (N-S)	1,115	Stable Flow	1,049	Stable Flow
Otay Mesa Rd (E-W) @ Cactus Rd (N-S)	1,129	Stable Flow	1,055	Stable Flow
Otay Mesa Rd (E-W) @ Britannia Blvd (N-S)	708	Stable Flow	936	Stable Flow
Otay Mesa Rd (E-W) @ La Media Rd (N-S)	740	Stable Flow	924	Stable Flow
Otay Mesa Rd (E-W) @ Piper Ranch Rd (N-S)	696	Stable Flow	766	Stable Flow
Otay Mesa Rd (E-W) @ SR-125 SB (N-S)	701	Stable Flow	677	Stable Flow
Otay Mesa Rd (E-W) @ SR-125 NB (N-S)	417	Stable Flow	754	Stable Flow
Otay Mesa Rd (E-W) @ SR-905 Connector (N-S)	700	Stable Flow	911	Stable Flow
Siempre Viva Rd (E-W) @ SR-905 SB to EB Siempre Viva Rd (N-S)	363	Stable Flow	463	Stable Flow
Siempre Viva Rd (E-W) @ SR-905 NB (N-S)	372	Stable Flow	483	Stable Flow

ILV/Hr = Intersecting Lane Vehicles per hour; E-W = East-West; N-S = North-South
< 1,200 ILV/Hr = Stable flow;
1,200 – 1,500 ILV/Hr = Unstable Flow;
1,500 ILV/Hr = Capacity.
Source: Darnell & Associates, Inc. (September 20, 2010)

Table 2.7-8 PROJECT PHASING AND TRIP GENERATION

TRIP GENERATION RATES							
Land Use	**Daily**	**AM Peak Hour**			**PM Peak Hour**		
		Total - % of Daily	**% In**	**% Out**	**Total - % of Daily**	**% In**	**% Out**
Business Park	16 Trips/KSF	12%	80%	20%	12%	20%	80%
TRIP GENERATION CALCULATIONS							
Phase	**Total No Of Units (KSF)**	**Daily**	**AM Peak Hour**			**PM Peak Hour**		
			Total	**In**	**Out**	**Total**	**In**	**Out**
Phase I	625,000	10,000	1,200	960	240	1,200	240	960
Phase II	486,500	7,784	934	747	187	934	187	747
Subtotal Phases I & II	**1,111,500**	**17,184**	**2,134**	**1,707**	**427**	**2,l34**	**427**	**1,707**
Phase III	532,200	8,515	1,022	818	204	1,022	204	818
Subtotal Phases I, II & II	**1,643,700**	**26,299**	**3,156**	**2,525**	**634**	**3,156**	**634**	**2,525**
Phase IV	449,200	7,187	862	690	172	862	172	690
Grand Total	**2,092,900**	**33,486**	**4,018**	**3,215**	**803**	**4,018**	**803**	**3,215**

KSF= 1,000 square feet; square footage is based on 40% lot coverage.
Source: Darnell & Associates, Inc. (September 20, 2010)

Table 2.7-9 EXISTING PLUS PROJECT PHASE 1 ROADWAY SEGMENT LEVEL OF SERVICE SUMMARY

ROADWAY SEGMENT	CLASS	CAPACITY (LOS E)	EXISTING			EXISTING + PROJECT PHASE 1					
			ADT	V/C	LOS	PROJ. TR	ADT	V/C	LOS	ΔV/C	SIG?
Interim SR-905 (Otay Mesa Road)											
Heritage Rd to Cactus Rd*	6P	60,000	**64,299**	**1.07**	**F**	**6,300**	**70,599**	**1.18**	**F**	**0.11**	**Yes[c]**
Cactus Rd to Britannia Blvd*	6P	60,000	**71,080**	**1.18**	**F**	**6,400**	**77,480**	**1.29**	**F**	**0.11**	**Yes[c]**
Britannia Blvd to La Media Rd*	6P	60,000	**58,999**	**0.98**	**E**	**6,600**	**65,599**	**1.09**	**F**	**0.11**	**Yes[c]**
La Media Rd to Piper Ranch Rd*	4M (m)	45,000 (a)	**44,523**	**0.99**	**E**	**6,900**	**51,423**	**1.14**	**F**	**0.15**	**Yes**
Piper Ranch Rd to SR-125*	6P	57,000	43,109	0.76	C	**7,000**	**50,109**	**0.88**	**E**	**0.12**	**Yes[c]**
Otay Mesa Road (Old Otay Mesa Road)											
SR-125 to Interim SR-905 Connector*	4M (m)	47,000 (a)	16,686	0.36	A	7,000	23,686	0.50	B	0.14	No
Interim SR-905 Connector to Harvest Rd	4M (m)	47,000 (a)	9,738	0.21	A	5,000	14,738	0.31	A	0.10	No
Harvest Rd to Sanyo Ave	4M	37,000	8,224	0.22	A	5,000	13,224	0.36	A	0.14	No
Sanyo Ave to Enrico Fermi Dr	LC	16,200	9,133	0.56	D	**4,000**	**13,133**	**0.81**	**E**	**0.25**	**Yes**
Airway Road											
Sanyo Ave to Paseo de Las Americas	4M	40,000	5,649	0.14	A	1,000	6,649	0.17	A	0.03	No
Paseo de Las Americas to Michael Faraday	4M	37,000	4,533	0.12	A	1,000	5,533	0.15	A	0.03	No
Michael Faraday to Enrico Fermi Dr	LC	16,200	2,918	0.18	B	1,000	3,918	0.24	B	0.06	No
Enrico Fermi Drive to Airway Place	4C	34,200	1,160	0.03	A	5,000	6,160	0.18	A	0.15	No
Airway Place to Alta Road	LC	16,200	Does Not Exist			5,000	5,000	0.31	C	0.31	No
Siempre Viva Road											
SR-905 to Paseo de Las Americas	6P	60,000	26,653	0.44	B	4,500	31,153	0.52	B	0.08	No
Paseo de Las Americas to Michael Faraday	4C	30,000	9,886	0.33	A	4,500	14,386	0.48	C	0.15	No
Michael Faraday to Enrico Fermi Dr	4C	30,000	6,442	0.21	A	4,500	10,942	0.36	B	0.15	No
Enrico Fermi Drive to Airway Place	4C	16,200	830	0.05	A	5,000	5,830	0.36	C	0.31	No
Airway Place to Alta Road	LC	16,200	Does Not Exist			5,000	5,000	0.31	C	0.31	No
SR-125											
North of Otay Mesa Road*	4-Fwy	(b)	30,000	0.33	A	2,000	32,000	0.35	A	0.02	No
Existing SR-905											
Otay Mesa Rd to Siempre Viva Rd*	4M	40,000	**37,823**	**0.95**	**E**	**4,000**	**41,823**	**1.05**	**F**	**0.10**	**Yes**
Sanyo Avenue											
Otay Mesa Road to Airway Rd	4C	30,000	2,666	0.09	A	1,000	3,666	0.12	A	0.03	No
Enrico Fermi Drive											
Otay Mesa Road to Airway Rd	TC	19,000	2,681	0.14	A	4,500	7,181	0.38	C	0.24	No

LOS= Level of Service; ADT= Average Daily Trips; V/C=Volume to Capacity; ΔV/C = increase (decrease) in V/C due to Project traffic; 4-Fwy = 4-Lane Freeway; 6P = 6-lane Prime Arterial; 4M(m) = Modified 4-Lane Major Road; 4M = 4-lane Major Arterial; 4C = 4-Lane Collector; 2C = 2-lane Collector; LC = Light Collector; TC = Town Collector. (a) Additional lanes may be provided to accommodate turning movements and freeway access; hence the roadway capacity was assumed to be 45,000 for City or 47,000 for County at LOS E (half way between a 4-Lane Major & 6-Lane Prime Arterial). (b) Capacity based on Caltrans District 11 & HCM procedures, See Appendix K to Traffic Study for LOS calculations. (c) Table 2.7-10 of the Arterial Roadway Segment analysis shows that these roadway segment operate acceptably, and impacts are therefore considered to be less than significant. (*) indicates CMP System Roadways, which are evaluated pursuant to the 2008 Congestion Management Plan. *Source: Darnell & Associates, Inc, (September 20, 2010).*

Table 2.7-10 EXISTING PLUS PHASE 1 PROJECT ARTERIAL LOS SUMMARY

AM PEAK HOUR

Roadway Segment	Jurisdiction	Direction of Travel	Existing (A)		Existing + Phase 1 Project (B)	
			Speed (mph)	LOS	Speed (mph)	LOS
Interim SR-905 – Heritage Rd to Cactus Rd	City/Caltrans	Eastbound	35.2	A	32.8	B
		Westbound	27.2	C	28.9	B
Interim SR-905 – Cactus Rd. to Britannia Blvd.	City/Caltrans	Eastbound	38.8	A	38.8	A
		Westbound	38.9	A	38.8	A
Interim SR-905 – Britannia Blvd. to La Media Rd.	City/Caltrans	Eastbound	43.0	A	42.6	A
		Westbound	44.4	A	44.4	A
Interim SR-905 – La Media Rd. to Piper Ranch Rd.	City/Caltrans/County	Eastbound	37.9	A	36.8	A
		Westbound	31.5	B	32.7	B
Interim SR-905 – Piper Ranch Rd to SR125	City/Caltrans/County	Eastbound	31.9	B	27.7	C
		Westbound	29.4	B	33.1	B

PM PEAK HOUR

Roadway Segment	Jurisdiction	Direction of Travel	Existing (A)		Existing + Phase 1 Project (B)	
			Speed (mph)	LOS	Speed (mph)	LOS
Interim SR-905 – Heritage Rd to Cactus Rd	City/Caltrans	Eastbound	29.3	B	29.6	B
		Westbound	24.4	C	23.5	C
Interim SR-905 – Cactus Rd. to Britannia Blvd.	City/Caltrans	Eastbound	36.1	A	36.0	A
		Westbound	38.3	A	37.1	A
Interim SR-905 – Britannia Blvd. to La Media Rd.	City/Caltrans	Eastbound	41.7	A	35.0	B
		Westbound	41.9	A	37.5	A
Interim SR-905 – La Media Rd. to Piper Ranch Rd.	City/Caltrans/County	Eastbound	34.3	B	37.8	A
		Westbound	31.9	B	25.6	C
Interim SR-905 – Piper Ranch Rd to SR125	City/Caltrans/County	Eastbound	34.7	B	35.5	A
		Westbound	34.2	B	34.2	B

LOS=Level of Service; Speed is measured in miles per hour (mph).
Source: Darnell & Associates, Inc, (September 20, 2010).

Table 2.7-11 EXISTING PLUS PROJECT PHASES 1 AND 2 ROADWAY SEGMENT DAILY LOS SUMMARY

ROADWAY SEGMENT	CLASS	CAPACITY (LOS E)	EXISTING			EXISTING + PROJECT PHASES 1 & 2					
			ADT	V/C	LOS	PROJ. TR	ADT	V/C	LOS	ΔV/C	SIG?
Interim SR-905 (Otay Mesa Rd)											
Heritage Rd to Cactus Rd*	6P	60,000	**64,299**	**1.07**	**F**	**11,204**	**75,503**	**1.26**	**F**	**0.19**	**Yes** (c)
Cactus Rd to Britannia Blvd*	6P	60,000	**71,080**	**1.18**	**F**	**11,382**	**82,462**	**1.37**	**F**	**0.19**	**Yes** (c)
Britannia Blvd to La Media Rd*	6P	60,000	**58,999**	**0.98**	**E**	**11,737**	**70,736**	**1.18**	**F**	**0.20**	**Yes** (c)
La Media Rd to Piper Ranch Rd*	4M(m)	45,000(a)	**44,523**	**0.99**	**E**	**12,271**	**56,794**	**1.26**	**F**	**0.27**	**Yes**
Piper Ranch Rd to SR-125*	6P	57,000	43,109	0.76	C	**12,449**	**55,558**	**0.97**	**E**	**0.21**	**Yes** (c)
Otay Mesa Road (Old Otay Mesa Road)											
SR-125 to Interim SR-905 Connector*	4M(m)	47,000(a)	16,686	0.36	A	12,449	29,135	0.62	B	0.26	No
Interim SR-905 Connector to Harvest Rd	4M(m)	47,000(a)	9,738	0.21	A	8,892	18,630	0.40	B	0.19	No
Harvest Rd to Sanyo Ave	4M	37,000	8,224	0.22	AD	8,892	17,116	0.46	B	0.24	No
Sanyo Ave to Enrico Fermi Dr	LC	16,200	9,133	0.56	D	**7,114**	**16,247**	**1.00**	**F**	**0.44**	**Yes**
Airway Road											
Sanyo Ave to Paseo de Las Americas	4M	40,000	5,649	0.14	A	1,778	7,427	0.19	A	0.05	No
Paseo de Las Americas to Michael Faraday	4M	37,000	4,533	0.12	A	1,778	6,311	0.17	A	0.05	No
Michael Faraday to Enrico Fermi Dr	LC	16,200	2,918	0.18	B	1,778	4,696	0.29	C	0.11	No
Enrico Fermi Drive to Airway Place	4C	34,200	1,160	0.03	A	8,892	10,052	0.27	A	0.24	No
Airway Place to Alta Road	LC	16,200	Does Not Exist			8,892	8,892	0.55	D	0.55	No
Siempre Viva Road											
SR-905 to Paseo de Las Americas	6P	60,000	26,653	0.44	B	8,003	34,656	0.58	B	0.14	No
Paseo de Las Americas to Michael Faraday	4C	30,000	9,886	0.33	A	8,003	17,889	0.60	C	0.27	No
Michael Faraday to Enrico Fermi Dr	4C	30,000	6,442	0.21	A	8,003	14,445	0.48	C	0.27	No
Enrico Fermi Drive to Airway Place	4C	16,200	830	0.05	A	8,892	9,722	0.60	D	0.55	No
Airway Place to Alta Road	LC	16,200	Does Not Exist			8,892	8,892	0.55	D	0.55	No
SR-125											
North of Otay Mesa Road*	4-Fwy	(b)	30,000	0.33	A	3,557	33,557	0.37	A	0.04	No
Existing SR-905											
Otay Mesa Rd to Siempre Viva Rd*	4M	40,000	**37,823**	**0.95**	**E**	**7,114**	**44,937**	**1.12**	**F**	**0.17**	**Yes**
South of Siempre Viva Rd*	4-Fwy	(b)	28,000	0.32	A	889	28,889	0.33	A	0.01	No
Sanyo Avenue											
Otay Mesa Rd to Airway Rd	4C	30,000	2,666	0.09	A	1,778	4,444	0.15	A	0.06	No
Enrico Fermi Drive											
Otay Mesa Rd to Airway Rd	TC	19,000	2,681	0.14	A	8,003	10,684	0.56	D	0.42	No
Airway Rd to Siempre Viva Rd	4M	40,000	7,110	0.18	A	889	7,999	0.20	A	0.02	No

ADT= Average Daily Traffic; LOS= Level of Service; V/C = Volume-to LOS E Capacity Ratio; ΔV/C = increase (decrease) in V/C due to Project traffic; 4-Fwy = 4-Lane Freeway; 6P = 6-Lane Prime Arterial; 4M(m) = Modified 4-Lane Major Road; 4M = 4-Lane Major Arterial; 4C = 4-Lane Collector; TC = Town Collector; 2C= 2-Lane Collector; LC = Light Collector. (a) Additional lanes may be provided to accommodate turning movements and freeway access; hence the roadway capacity was assumed to be 45,000 for City or 47,000 for County at LOS E (half way between a 4-Lane Major & 6-Lane Prime Arterial). (b) Capacity based on Caltrans District 11 & HCM procedures. See Appendix K to Traffic Study for LOS calculations (c) Table 2.7-12, *Existing Plus Phases 1 & 2 Project Arterial LOS Summary*, shows that the roadway segments are not significantly impacted. (*) indicates CMP System Roadways, which are evaluated pursuant to the 2008 Congestion Management Plan. *Source: Darnell & Associates, Inc, (September 20, 2010).*

Table 2.7-12 EXISTING PLUS PHASES 1 & 2 PROJECT ARTERIAL LOS SUMMARY

AM PEAK HOUR

Intersection	Jurisdiction	Direction of Travel	Existing		Existing + Phases 1-2 Project	
			Speed (mph)	LOS	Speed (mph)	LOS
Interim SR-905 – Heritage Rd to Cactus Rd	City/Caltrans	Eastbound	35.2	A	21.6	D
		Westbound	27.2	B	30.3	B
Interim SR-905 – Cactus Rd. to Britannia Blvd.	City/Caltrans	Eastbound	38.8	B	37.5	A
		Westbound	38.9	A	39.2	A
Interim SR-905 – Britannia Blvd. to La Media Rd.	City/Caltrans	Eastbound	43.0	A	41.3	A
		Westbound	44.4	A	44.4	A
Interim SR-905 – La Media Rd. to Piper Ranch Rd.	City/Caltrans/County	Eastbound	37.9	A	30.6	B
		Westbound	31.5	B	33.3	B
Interim SR-905 – Piper Ranch Rd to SR125	City/Caltrans/County	Eastbound	31.9	B	24.9	C
		Westbound	29.4	B	33.5	B

PM PEAK HOUR

Intersection	Jurisdiction	Direction of Travel	Existing		Existing + Phases 1-2 Project	
			Speed (mph)	LOS	Speed (mph)	LOS
Interim SR-905 – Heritage Rd to Cactus Rd	City/Caltrans	Eastbound	29.3	B	30.5	B
		Westbound	24.4	C	19.2	D
Interim SR-905 – Cactus Rd. to Britannia Blvd.	City/Caltrans	Eastbound	36.1	A	34.0	B
		Westbound	38.3	A	34.0	B
Interim SR-905 – Britannia Blvd. to La Media Rd.	City/Caltrans	Eastbound	41.7	A	42.5	A
		Westbound	41.9	A	40.4	A
Interim SR-905 – La Media Rd. to Piper Ranch Rd.	City/Caltrans/County	Eastbound	34.3	B	32.1	B
		Westbound	31.9	B	29.2	B
Interim SR-905 – Piper Ranch Rd to SR125	City/Caltrans/County	Eastbound	34.7	B	33.9	B
		Westbound	34.2	B	33.8	B

LOS=Level of Service; Speed is measured in miles per hour (mph).
Source: Darnell & Associates, Inc, (September 20, 2010).

Table 2.7-13 EXISTING PLUS PROJECT PHASES 1 THROUGH 3 ROADWAY SEGMENT DAILY LOS SUMMARY

ROADWAY SEGMENT	CLASS	CAPACITY (LOS E)	EXISTING			EXISTING + PROJECT PHASES 1-3					
			ADT	V/C	LOS	PROJ. TR	ADT	V/C	LOS	ΔV/C	SIG
Interim SR-905 (Otay Mesa Rd)											
Heritage Rd to Cactus Rd*	6P	60,000	**64,299**	**1.07**	**F**	**16,568**	**80,867**	**1.35**	**F**	**0.28**	**Yes**
Cactus Rd to Britannia Blvd*	6P	60,000	**71,080**	**1.18**	**F**	**16,831**	**87,911**	**1.47**	**F**	**0.29**	**Yes**
Britannia Blvd to La Media Rd*	6P	60,000	**58,999**	**0.98**	**E**	**17,357**	**76,356**	**1.27**	**F**	**0.29**	**Yes (c)**
La Media Rd to Piper Ranch Rd*	4M(m)	45,000(a)	**44,523**	**0.99**	**E**	**18,146**	**62,669**	**1.39**	**F**	**0.40**	**Yes**
Piper Ranch Rd to SR-125*	6P	57,000	43,109	0.76	C	**18,409**	**61,518**	**1.08**	**F**	**0.32**	**Yes (c)**
Otay Mesa Road (Old Otay Mesa Road)											
SR-125 to Interim SR-905 Connector*	4M(m)	47,000(a)	16,686	0.36	A	18,409	35,095	0.75	C	0.39	No
Interim SR-905 Connector to Harvest Rd	4M(m)	47,000(a)	9,738	0.21	A	13,150	22,888	0.49	B	0.28	No
Harvest Rd to Sanyo Ave	4M	37,000	8,224	0.22	A	13,150	21,374	0.58	B	0.36	No
Sanyo Ave to Enrico Fermi Dr	LC	16,200	9,133	0.56	D	**10,520**	**19,653**	**1.21**	**F**	**0.65**	**Yes**
Airway Road											
Sanyo Ave to Paseo de Las Americas	4M	40,000	5,649	0.14	A	2,630	8,279	0.21	A	0.07	No
Paseo de Las Americas to Michael Faraday	4M	37,000	4,533	0.12	A	2,630	7,163	0.19	A	0.07	No
Michael Faraday to Enrico Fermi Dr	LC	16,200	2,918	0.18	B	2,630	5,548	0.34	C	0.16	No
Enrico Fermi Drive to Airway Place	4C	34,200	1,160	0.03	A	13,150	14,310	0.42	B	0.39	No
Airway Place to Alta Road	LC	16,200	Does Not Exist			**13,150**	**13,150**	**0.81**	**E**	**0.81**	**Yes**
Siempre Viva Road											
SR-905 to Paseo de Las Americas	6P	60,000	26,653	0.44	B	11,835	38,488	0.64	C	0.20	No
Paseo de Las Americas to Michael Faraday	4C	30,000	9,886	0.33	A	11,835	21,721	0.72	D	0.39	No
Michael Faraday to Enrico Fermi Dr	4C	30,000	6,442	0.21	A	11,835	18,277	0.61	C	0.40	No
Enrico Fermi Drive to Airway Place	LC	16,200	830	0.05	A	**13,150**	**13,980**	**0.86**	**E**	**0.81**	**Yes**
Airway Place to Alta Road	LC	16,200	Does Not Exist			**13,150**	**13,150**	**0.81**	**E**	**0.81**	**Yes**
Britannia Boulevard											
Interim SR-905 (Otay Mesa Rd.) to Airway Rd.	4C	15,000	7,959	0.53	C	526	8,485	0.57	C	0.04	No
La Media Road											
Interim SR-905 (Otay Mesa Rd) to St. Andrews Place	4C	30,000	15,225	0.51	C	526	15,751	0.53	C	0.02	No
St. Andrews Place to Airway	2C	10,000	**15,225**	**1.52**	**F**	**526**	**15,751**	**1.58**	**F**	**0.06**	**Yes**
Airway Road to Siempre Viva Road	2C	10,000	**13,968**	**1.40**	**F**	**526**	**14,494**	**1.45**	**F**	**0.05**	**Yes**
SR-125											
North of Otay Mesa Road*	4-Fwy	(b)	30,000	0.33	A	5,260	35,260	0.39	A	0.06	No
Existing SR-905											
Otay Mesa Rd to Siempre Viva Rd*	4M	40,000	**37,823**	**0.95**	**E**	**10,520**	**48,343**	**1.21**	**F**	**0.26**	**Yes**
South of Siempre Viva Rd*	4-Fwy	(b)	28,000	0.32	A	1,315	29,315	0.33	A	0.01	No
Sanyo Avenue											
Otay Mesa Rd to Airway Rd	4C	30,000	2,666	0.09	A	2,630	5,296	0.18	A	0.09	No
Enrico Fermi Drive											
Otay Mesa Rd to Airway Rd	TC	19,000	2,681	0.14	A	**11,835**	**14,516**	**0.76**	**E**	**0.62**	**Yes**
Airway Rd to Siempre Viva Rd	4M	40,000	7,110	0.18	A	1,315	8,425	0.21	A	0.03	No

ADT= Average Daily Traffic; LOS= Level of Service; V/C = Volume-to LOS E Capacity Ratio; ΔV/C = increase (decrease) in V/C due to Project traffic; 4-Fwy = 4-Lane Freeway; 6P = 6-Lane Prime Arterial; 4M(m) = Modified 4-Lane Major Road; 4M = 4-Lane Major Arterial; 4C = 4-Lane Collector; TC = Town Collector; 2C= 2-Lane Collector; LC = Light Collector. (a) Additional lanes may be provided to accommodate turning movements and freeway access; hence the roadway capacity was assumed to be 45,000 for City or 47,000 for County at LOS E (half way between a 4-Lane Major & 6-Lane Prime Arterial). (b) Capacity based on Caltrans District 11 & HCM procedures, See Appendix K to Traffic Study for LOS calculations (c) Table 2.7-14, *Existing Plus Phases 1 Through 3 Project Arterial LOS Summary*, shows that the roadway segment operate acceptably during the AM/PM peak hours, and is therefore considered to be a less than significant impact. (*) indicates CMP System Roadways, which are evaluated pursuant to the 2008 Congestion Management Plan. *Source: Darnell & Associates, Inc, (September 20, 2010).*

Table 2.7-14 EXISTING PLUS PHASES 1 THROUGH 3 PROJECT ARTERIAL LOS SUMMARY

AM PEAK HOUR

Intersection	Jurisdiction	Direction of Travel	Existing (A)		Existing + Phases 1-3 Project (B)	
			Speed (mph)	LOS	Speed (mph)	LOS
Interim SR-905 – Heritage Rd to Cactus Rd	City/Caltrans	Eastbound	35.2	A	**11.9**	**F**
		Westbound	27.2	C	29.0	B
Interim SR-905 – Cactus Rd. to Britannia Blvd.	City/Caltrans	Eastbound	38.8	A	19.4	D
		Westbound	38.9	A	39.3	A
Interim SR-905 – Britannia Blvd. to La Media Rd.	City/Caltrans	Eastbound	43.0	A	39.5	A
		Westbound	44.4	A	44.5	A
Interim SR-905 – La Media Rd. to Piper Ranch Rd.	City/Caltrans/County	Eastbound	37.9	A	17.4	D
		Westbound	31.5	B	34.9	B
Interim SR-905 – Piper Ranch Rd to SR125	City/Caltrans/County	Eastbound	31.9	B	21.5	D
		Westbound	29.4	B	29.5	B

PM PEAK HOUR

Intersection	Jurisdiction	Direction of Travel	Existing (A)		Existing + Phases 1-3 Project (B)	
			Speed (mph)	LOS	Speed (mph)	LOS
Interim SR-905 – Heritage Rd to Cactus Rd	City/Caltrans	Eastbound	29.3	B	30.8	B
		Westbound	24.4	C	**11.4**	**F**
Interim SR-905 – Cactus Rd. to Britannia Blvd.	City/Caltrans	Eastbound	36.1	A	32.6	B
		Westbound	38.3	A	31.2	B
Interim SR-905 – Britannia Blvd. to La Media Rd.	City/Caltrans	Eastbound	41.7	A	42.6	A
		Westbound	41.9	A	29.4	B
Interim SR-905 – La Media Rd. to Piper Ranch Rd.	City/Caltrans/County	Eastbound	34.3	B	30.8	B
		Westbound	31.9	B	22.6	C
Interim SR-905 – Piper Ranch Rd to SR125	City/Caltrans/County	Eastbound	34.7	B	33.4	B
		Westbound	34.2	B	30.4	B

LOS=Level of Service; Speed is measured in miles per hour (mph).*Source: Darnell & Associates, Inc, (September 20, 2010).*

Table 2.7-15 EXISTING PLUS PROJECT BUILDOUT (PHASES 1 THROUGH 4) CONDITIONS ROADWAY SEGMENT DAILY LOS SUMMARY

Roadway Segment	Class	Capacity (LOS E)	Existing			Existing + Project Phases 1-4					
			ADT	V/C	LOS	Proj. Tr	ADT	V/C	LOS	ΔV/C	Sig
Interim SR-905 (Otay Mesa Rd)											
Heritage Rd to Cactus Rd*	6P	60,000	**64,299**	**1.07**	**F**	**21,096**	**85,395**	**1.42**	**F**	**0.35**	**Yes**
Cactus Rd to Britannia Blvd*	6P	60,000	**71,080**	**1.18**	**F**	**21,431**	**92,511**	**1.54**	**F**	**0.36**	**Yes**
Britannia Blvd to La Media Rd*	6P	60,000	**58,999**	**0.98**	**E**	**22,101**	**81,100**	**1.35**	**F**	**0.37**	**Yes**
La Media Rd to Piper Ranch Rd*	4M(m)	45,000(a)	**44,523**	**0.99**	**E**	**23,105**	**67,628**	**1.50**	**F**	**0.51**	**Yes**
Piper Ranch Rd to SR-125*	6P	57,000	43,109	0.76	C	**23,440**	**66,549**	**1.17**	**F**	**0.41**	**Yes**
Otay Mesa Road (Old Otay Mesa Road)											
SR-125 to Interim SR-905 Connector*	4M(m)	47,000(a)	16,686	0.36	A	23,440	40,126	0.85	D	0.49	No
Interim SR-905 Connector to Harvest Rd	4M(m)	47,000(a)	9,738	0.21	A	16,743	26,481	0.56	B	0.35	No
Harvest Rd to Sanyo Ave	4M	37,000	8,224	0.22	A	16,743	24,967	0.67	C	0.45	No
Sanyo Ave to Enrico Fermi Dr	LC	16,200	9,133	0.56	D	**13,394**	**22,527**	**1.39**	**F**	**0.83**	**Yes**
Airway Road											
Sanyo Ave to Paseo de Las Americas	4M	40,000	5,649	0.14	A	3,349	8,998	0.22	A	0.08	No
Paseo de Las Americas to Michael Faraday	4M	37,000	4,533	0.12	A	3,349	7,882	0.21	A	0.08	No
Michael Faraday to Enrico Fermi Dr	LC	16,200	2,918	0.18	B	3,349	6,267	0.39	C	0.21	No
Enrico Fermi Drive to Airway Place	4C	34,200	1,160	0.03	A	16,743	17,903	0.52	B	0.49	No
Airway Place to Alta Road	LC	16,200	Does Not Exist			**16,743**	**16,743**	**1.03**	**F**	**1.03**	**Yes**
Siempre Viva Road											
SR-905 to Paseo de Las Americas	6P	60,000	26,653	0.44	B	15,069	41,722	0.70	C	0.26	No
Paseo de Las Americas to Michael Faraday	4C	30,000	9,886	0.33	A	15,069	24,955	0.83	D	0.50	No
Michael Faraday to Enrico Fermi Dr	4C	30,000	6,442	0.21	A	15,069	21,511	0.72	D	0.51	No
Enrico Fermi Drive to Airway Place	LC	16,200	830	0.05	A	**16,743**	**17,573**	**1.08**	**F**	**1.03**	**Yes**
Airway Place to Alta Road	LC	16,200	Does Not Exist			**16,743**	**16,743**	**1.03**	**F**	**1.03**	**Yes**
Britannia Boulevard											
Interim SR-905 (Otay Mesa Rd.) to Airway Road	4C	15,000	7,959	0.53	C	670	8,629	0.58	C	0.05	No
La Media Road											
Interim SR-905 (Otay Mesa Rd) to St. Andrews Ave.	4C	30,000	15,225	0.51	C	670	15,895	0.53	C	0.02	No
St. Andrews Ave. to Airway Road	2C	10,000	**15,225**	**1.52**	**F**	**670**	**15,895**	**1.59**	**F**	**0.07**	**Yes**
Airway Road to Siempre Viva Road	2C	10,000	**13,968**	**1.40**	**F**	**670**	**14,368**	**1.46**	**F**	**0.06**	**Yes**
SR-125											
North of Otay Mesa Road*	4-Fwy	(b)	30,000	0.33	A	6,697	36,697	0.40	A	0.07	No
Existing SR-905											
Otay Mesa Rd to Siempre Viva Rd*	4M	40,000	**37,823**	**0.95**	**E**	**13,394**	**51,217**	**1.28**	**F**	**0.33**	**Yes**
South of Siempre Viva Rd*	4-Fwy	(b)	28,000	0.32	A	1,674	29,674	0.34	A	0.02	No
Sanyo Avenue											
Otay Mesa Rd to Airway Rd	4C	30,000	2,666	0.09	A	3,349	6,015	0.20	A	0.11	No
Enrico Fermi Drive											
Otay Mesa Rd to Airway Rd	TC	19,000	2,681	0.14	A	**15,069**	**17,750**	**0.93**	**E**	**0.79**	**Yes**
Airway Rd to Siempre Viva Rd	4M	40,000	7,110	0.18	A	1,674	8,784	0.22	A	0.04	No

ADT= Average Daily Traffic; LOS= Level of Service; V/C = Volume-to LOS E Capacity Ratio; ΔV/C = increase (decrease) in V/C due to Project traffic; 4-Fwy = 4-Lane Freeway; 6P = 6-Lane Prime Arterial; 4M(m) = Modified 4-Lane Major Road; 4M = 4-Lane Major Arterial; 4C = 4-Lane Collector; TC = Town Collector; 2C= 2-Lane Collector; LC = Light Collector. (a) Additional lanes may be provided to accommodate turning movements and freeway access; hence the roadway capacity was assumed to be 45,000 for City or 47,000 for County at LOS E (half way between a 4M & 6P). (b) Capacity based on Caltrans District 11 & HCM procedures, See Appendix K to Traffic Study for LOS calculations. *Source: Darnell & Associates, Inc, (September 20, 2010).*

Table 2.7-16 EXISTING PLUS PROJECT BUILDOUT (PHASES 1 THROUGH 4) ARTERIAL LOS SUMMARY

AM PEAK HOUR

Intersection	Jurisdiction	Direction of Travel	Existing		Existing + Phases 1-4 Project	
			Speed (mph)	LOS	Speed (mph)	LOS
Interim SR-905 – Heritage Rd to Cactus Rd	City/Caltrans	Eastbound	35.2	A	**8.6**	**F**
		Westbound	27.2	C	29.0	B
Interim SR-905 – Cactus Rd. to Britannia Blvd.	City/Caltrans	Eastbound	38.8	A	**11.8**	**F**
		Westbound	38.9	A	39.4	A
Interim SR-905 – Britannia Blvd. to La Media Rd.	City/Caltrans	Eastbound	43.0	A	26.9	C
		Westbound	44.4	A	44.5	A
Interim SR-905 – La Media Rd. to Piper Ranch Rd.	City/Caltrans/County	Eastbound	37.9	A	**10.2**	**F**
		Westbound	31.5	B	35.2	A
Interim SR-905 – Piper Ranch Rd to SR125	City/Caltrans/County	Eastbound	31.9	B	**12.1**	**F**
		Westbound	29.4	B	31.0	B

PM PEAK HOUR

Intersection	Jurisdiction	Direction of Travel	Existing		Existing + Phases 1-4 Project	
			Speed (mph)	LOS	Speed (mph)	LOS
Interim SR-905 – Heritage Rd to Cactus Rd	City/Caltrans	Eastbound	29.3	B	30.8	B
		Westbound	24.4	C	**8.2**	**F**
Interim SR-905 – Cactus Rd. to Britannia Blvd.	City/Caltrans	Eastbound	36.1	A	31.5	B
		Westbound	38.3	A	18.3	D
Interim SR-905 – Britannia Blvd. to La Media Rd.	City/Caltrans	Eastbound	41.7	A	42.8	A
		Westbound	41.9	A	19.9	D
Interim SR-905 – La Media Rd. to Piper Ranch Rd.	City/Caltrans/County	Eastbound	34.3	B	29.7	B
		Westbound	31.9	B	**12.7**	**F**
Interim SR-905 – Piper Ranch Rd to SR125	City/Caltrans/County	Eastbound	34.7	B	33.3	B
		Westbound	34.2	B	21.6	D

LOS=Level of Service; Speed is measured in miles per hour (mph).
Source: Darnell & Associates, Inc, (September 20, 2010).

Table 2.7-17 SUMMARY OF ON-SITE AND PROJECT ACCESS ROADWAY SEGMENT IMPROVEMENTS (EXISTING PLUS PROJECT CONDITIONS)

Roadway Segment	Existing Plus Project Conditions				Ultimate Classification Per EOMSP[1]
	Phase 1	Phases 1-2	Phases 1-3	Phases 1-4[1]	
Airway Road					
Airway Place to Alta Rd	LC	4C	4C	4C	4M
Alta Rd to 'B' Street	LC	4C	4C	4C	4M
'B' Street to Siempre Viva Rd	LC	LC	TC	4C	4M
Siempre Viva Rd to 'A' Street	N/A	2L-I/C	4L-I/C	4L-I/C	Non CE/4L-I/C
Siempre Viva Road					
Airway Place to Alta Rd	LC	4C	4C	4C	4M
Alta Rd to 'B' Street	LC	TC	4C	4C	4M
'B' Street to 'C" Street	LC	LC	LC	TC	4M
'C' Street to Airway Rd	N/A	LC	LC	LC	4M
Airway Rd to Project Boundary	N/A	N/A	N/A	LC	4M
'A' Street					
Alta Rd to 'B' Street	N/A	2L- I/C	4L- I/C	4L- I/C	Non CE/4L- I/C
'B' Street to 'C" Street	N/A	2L- I/C	2L- I/C	2L- I/C	Non CE/2L- I/C
'C' Street to Airway Rd	N/A	2L- I/C	2L- I/C	2L- I/C	Non CE/2L- I/C
Alta Road					
Airway Rd to Siempre Viva Rd	LC	LC	LC	LC	4M
Siempre Viva Rd to 'A' Street	2L- I/C	2L- I/C	2L- I/C (a)	2L- I/C (a)	2L- I/C (a)
'A' Street to Project Boundary	N/A	N/A	2L- I/C	2L- I/C	2L- I/C
'B' Street					
Airway Rd to Siempre Viva Rd	2L- I/C	2L- I/C	2L- I/C	2L- I/C	Non CE/2L- I/C
Siempre Viva Rd to 'A' Street	2L- I/C	2L- I/C	2L- I/C	2L- I/C	Non CE/2L- I/C
'C' Street					
Siempre Viva Rd to 'A' Street	N/A	2L- I/C	2L- I/C	2L- I/C	Non CE/2L- I/C
South of 'A' Street	N/A	N/A	2L- I/C*	2L- I/C*	Non CE2L- I/C*

1. Standard shown for Phases 1-4 is minimum required to achieve acceptable level of service, and reflects the standard evaluated by the Project's traffic study. Road segments occurring wholly on-site would be improved to the ultimate EOMSP classification prior to or as part of the 4th Phase of the proposed development. SEIR Table 1-3 shows the actual improvements proposed by the Project for each phase of the proposed Project. In some cases, the Project would exceed the roadway classifications depicted herein for a given phase. EOMSP = East Otay Mesa Specific Plan; 4M = 4-lane Major Road; 4C = 4-Lane Collector Road; TC = Town Collector; LC = Light Collector; 2L- I/C = 2-Lane Industrial Commercial Collector; 2L- I/C* - 2-Lane Industrial Commercial Collector Cul-De Sac; Non CE = Non Circulation Element Road; N/A = Not Applicable because this roadway segment will not be constructed until a later phase of development. (a) = Capacity assumed to be equivalent to that of a Light Collector Road, 16,200 ADT at LOS E. *Source: Darnell & Associates, Inc, (September 20, 2010).*

Table 2.7-18 INTERNAL AND PROJECT ACCESS ROADWAY SEGMENT DAILY LOS SUMMARY (EXISTING PLUS PROJECT CONDITIONS)

ROADWAY SEGMENT	RECOMMENDED CLASSIFICATION	CAPACITY (LOS E)	ADT	LOS
Existing + Project Phase 1				
Airway Road				
Alta Rd to 'B' Street	Light Collector	16,200	1,750	A
'B' Street to Siempre Viva Rd	Light Collector	16,200	650	A
Siempre Viva Road				
Alta Rd to 'B' Street	Light Collector	16,200	5,100	C
'B' Street to 'C' Street	Light Collector	16,200	550	A
Alta Road				
Airway Rd to Siempre Viva Rd	Light Collector	16,200	3,250	B
Siempre Viva Rd to 'A' Street [a]	2-Lane Industrial/Commercial Collector	4,500	650	<C
'B' Street [(a)]				
Airway Rd to Siempre Viva Rd	2-Lane Industrial/Commercial Collector	4,500	2,500	<C
Siempre Viva Rd to 'A' Street	2-Lane Industrial/Commercial Collector	4,500	2,250	<C
Existing + Project Phases 1-2				
Airway Road				
Alta Rd to 'B' Street	4-Lane Collector	34,200	7,558	A
'B' Street to Siempre Viva Rd	Light Collector	16,200	5,602	C
Siempre Viva Rd to 'A' Street	2-Lane Industrial/Commercial Collector	4,500	3,824	<C
Siempre Viva Road				
Alta Rd to 'B' Street	Town Collector	19,000	6,224	C
'B' Street to 'C' Street	Light Collector	16,200	2,134	B
'C' Street to Airway Rd	Light Collector	16,200	978	A
'A' Street [(a)]				
Alta Rd to 'B' Street	2-Lane Industrial/Commercial Collector	4,500	800	<C
'B' Street to 'C' Street	2-Lane Industrial/Commercial Collector	4,500	356	<C
'C' Street to Airway Rd	2-Lane Industrial/Commercial Collector	4,500	534	<C
Alta Road				
Airway Rd to Siempre Viva Rd	Light Collector	16,200	1,867	A
Siempre Viva Rd to 'A' Street[(a)]	2-Lane Industrial/Commercial Collector	4,500	1,601	<C
'B' Street [(a)]				
Airway Rd to Siempre Viva Rd	2-Lane Industrial/Commercial Collector	4,500	2,579	<C
Siempre Viva Rd to 'A' Street	2-Lane Industrial/Commercial Collector	4,500	2,934	<C
'C' Street[(a)]				
Siempre Viva Rd to 'A' Street	2-Lane Industrial/Commercial Collector	4,500	2,312	<C
Existing + Project Phases 1-3				
Airway Road				
Alta Rd to 'B' Street	4-Lane Collector	34,200	11,177	A
'B' Street to Siempre Viva Rd	Town Collector	19,000	9,205	C
Siempre Viva Rd to 'A' Street	4-Lane Industrial/Commercial Collector	13,500	7,758	<C
Siempre Viva Road				
Alta Rd to 'B' Street	4-Lane Collector	34,200	7,101	A
'B' Street to 'C' Street	Light Collector	16,200	2,893	B
'C' Street to Airway Rd	Light Collector	16,200	1,972	B
'A' Street [(a)]				
Alta Rd to 'B' Street	4-Lane Industrial/Commercial Collector	13,500	5,391	<C
'B' Street to 'C' Street	2-Lane Industrial/Commercial Collector	4,500	2,630	<C
'C' Street to Airway Rd	2-Lane Industrial/Commercial Collector	4,500	1,841	<C
Alta Road				
Airway Rd to Siempre Viva Rd	Light Collector	16,200	1,972	B
Siempre Viva Rd to 'A' Street	2-Lane Industrial/Commercial Collector	16,200	5,391	C
'B' Street [(a)]				
Airway Rd to Siempre Viva Rd	2-Lane Industrial/Commercial Collector	4,500	2,235	<C
Siempre Viva Rd to 'A' Street	2-Lane Industrial/Commercial Collector	4,500	2,235	<C
'C' Street[(a)]				
Siempre Viva Rd to 'A' Street	2-Lane Industrial/Commercial Collector	4,500	2,235	<C
South of 'A' Street	Cul-De Sac	1,000	**1,315**	**>C**
Existing + Project Phases 1-4				
Airway Road				
Alta Rd to 'B' Street	4-Lane Collector	34,200	14,901	B
'B' Street to Siempre Viva Rd	4-Lane Collector	34,200	12,892	A
Siempre Viva Rd to 'A' Street	4-Lane Industrial/Commercial Collector	13,500	13,060	<C
Siempre Viva Road				
Alta Rd to 'B' Street	4-Lane Collector	34,200	10,716	A
'B' Street to 'C' Street	Town Collector	19,000	6,530	C
'C' Street to Airway Rd	Light Collector	16,200	5,860	C
'A' Street [(a)]				
Alta Rd to 'B' Street	4-Lane Industrial/Commercial Collector	13,500	4,855	<C
'B' Street to 'C' Street	2-Lane Industrial/Commercial Collector	4,500	3,014	<C
'C' Street to Airway Rd	2-Lane Industrial/Commercial Collector	4,500	3,014	<C
Alta Road				
Airway Rd to Siempre Viva Rd	Light Collector	16,200	1,842	A
Siempre Viva Rd to 'A' Street	2-Lane Industrial/Commercial Collector (b)	16,200	5,525	C
'A' Street to Project Boundary [(a)]	2-Lane Industrial/Commercial Collector	4,500	335	<C
'B' Street [(a)]				
Airway Rd to Siempre Viva Rd	2-Lane Industrial/Commercial Collector	4,500	2,344	<C
Siempre Viva Rd to 'A' Street	2-Lane Industrial/Commercial Collector	4,500	2,511	<C
'C' Street[(a)]				
Siempre Viva Rd to 'A' Street	2-Lane Industrial/Commercial Collector	4,500	2,009	<C
South of 'A' Street	Cul-De Sac	1,000	**1,005**	**>C**

County = Capacity of County segments is based on the upper limits of LOS E per the County of San Diego; ADT= Average Daily Traffic; LOS= Level of Service; <C Operates at better than LOS C; >C Operates over recommended capacity for LOS C. (a) Levels of Service are typically not applied to industrial/commercial collector roads, The capacity shown here is the recommended capacity to maintain LOS C. (b) Capacity assumed to be equivalent to that of a Light Collector Road, 16,200 ADT at LOS E. *Source: Darnell & Associates, Inc, (September 20, 2010).* Note: "Recommended Classification" shown for Phases 1-4 is minimum required to achieve acceptable level of service, and reflects the standard evaluated by the Project's traffic study. SEIR Table 1-3 shows the actual improvements proposed by the Project for each phase of the proposed Project. In some cases, the Project would exceed the recommended classifications depicted herein for a given phase.

Table 2.7-19 EXISTING PLUS PROJECT PHASE 1 INTERSECTION LEVEL OF SERVICE SUMMARY

Intersections	Traffic Control	Critical Move	Existing				Existing + Project Phase 1									
			AM Peak		PM Peak		AM Peak					PM Peak				
			Delay	LOS	Delay	LOS	Delay	LOS	Proj. Trips	Δ Delay	Sig.	Delay	LOS	Proj. Trips	Δ Delay	Sig.
Otay Mesa Rd (E-W) @ Heritage Rd (N-S)	Sig	Int	29.8	C	29.2	C	34.4	C	744	4.6	No	34.4	C	744	5.2	No
Otay Mesa Rd (E-W) @ Cactus Rd(N-S)	Sig	Int	9.0	A	11.4	B	11.6	B	768	2.6	No	11.8	B	768	0.4	No
Otay Mesa Rd (E-W) @ Britannia Blvd (N-S)	Sig	Int	7.3	A	16.4	B	7.1	B	792	(0.2)	No	15.4	B	792	(10.0)	No
Otay Mesa Rd (E-W) @ La Media Rd (N-S)	Sig	Int	21.6	C	26.3	C	18.2	B	828	(3.4)	No	25.0	C	828	(1.3)	No
Otay Mesa Rd (E-W) @ Piper Ranch Rd (N-S)	Sig	Int	9.8	A	6.0	A	7.8	A	840	(2.0)	No	6.3	A	840	0.3	No
Otay Mesa Rd (E-W) @ SR-125 SB (N-S)	Sig	Int	11.8	B	2.9	A	15.3	B	1,032	3.5	No	3.6	A	888	0.7	No
Otay Mesa Rd (E-W) @ SR-125 NB (N-S)	Sig	Int	0.9	A	5.7	A	0.9	A	696	0.0	No	6.4	A	984	0.7	No
Otay Mesa Rd (E-W) @ SR-905 (N-S)	Sig	Int	16.2	B	21.3	C	16.3	B	696	0.1	No	32.5	C	984	11.2	No
Otay Mesa Rd (E-W) @ Sanyo Av (N-S)	Sig	Int	4.1	A	12.6	B	3.9	A	600	(0.2)	No	18.0	B	600	5.4	No
Otay Mesa Rd (E-W) @ Enrico Fermi Dr (N-S)	Sig	Int	10.4	B	9.4	A	18.7	B	480	8.3	No	19.6	B	480	10.2	No
Airway Rd (E-W) @ Sanyo Av (N-S)	AWSC	EB	10.1	B	9.9	A	10.9	B	0	0.8		10.3	B	0	0.4	
		WB	8.1	A	9.1	A	8.4	A	24	0.3		9.3	A	96	0.2	
		NB	8.0	A	9.2	A	8.3	A	0	0.3	No	9.7	A	0	0.5	No
		SB	9.6	A	8.0	A	12.6	B	96	3.0		8.9	A	24	0.9	
		Int	9.3	A	9.1	A	11.0	B	120	1.7		9.5	A	120	0.4	
Airway Rd (E-W) @ Paseo De Las Americas (N-S)	OWSC	NBL	9.7	A	10.6	B	10.8	B	0	1.1	No	12.5	B	0	1.9	No
Airway Rd (E-W) @ Michael Faraday (N-S)	OWSC	NBL	9.6	A	9.6	A	10.5	B	0	0.9	No	10.5	B	0	0.9	No
Airway Rd (E-W) @ Enrico Fermi Dr (N-S)	Sig	Int	6.6	A	13.0	B	15.9	B	660	9.3	No	20.6	C	660	7.6	No
Siempre Viva Rd (E-W) @ SR-905 SB to EB Siempre Viva (N-S)	Sig	Int	7.0	A	8.5	A	7.2	A	369	0.2	No	8.7	A	144	0.2	No
Siempre Viva Rd (E-W) @ SR-905 SB to WB Siempre Viva (N-S)	OWSC	SB	14.3	B	13.3	B	14.5	B	0	0.2	No	15.1	C	0	1.8	No
Siempre Viva Rd (E-W) @ SR-905 NB Ramp (N-S)	Sig	Int	10.8	B	11.0	B	10.2	B	540	(0.6)	No	9.8	A	540	(1.2)	No
Siempre Viva Rd (E-W) @ Paseo De Las Americas (N-S)	Sig	Int	24.7	C	40.0	D	23.2	C	540	(1.5)	No	**101.7**	**F**	**540**	**61.7**	**Yes**
Siempre Viva Rd (E-W) @ Michael Faraday (N-S)	TWSC	NB	14.5	B	13.2	B	34.0	D	0	19.5	No	24.8	C	0	11.6	No
		SBL-T	15.9	C	12.3	B	31.1	D	0	15.2		22.4	C	0	10.1	
Siempre Viva Rd (E-W) @ Enrico Fermi Dr (N-S)	Sig	Int	12.6	B	13.7	B	15.5	B	600	2.9	No	23.0	C	600	9.3	No

LOS=Level of Service; Delay is measured in seconds/vehicle; sig=signalized; AWSC=All Way Stop Controlled; TWSC = Two-Way Stop-Controlled; OWSC=One Way Stop Controlled; Int = Intersection; NB = Northbound Approach; SB = Southbound Approach; EB = Eastbound Approach; WB = Westbound Approach; NBL = Northbound Left; SBL-T = Shared Southbound Left-Through; E-W = East-West Roadway; N-S = North-South Roadway; Δ Delay = Increase (decrease) in delay; Occasionally adding traffic to a critical movement optimizes the intersection resulting in a decrease in delay.

Source: Darnell & Associates, Inc, (September 20, 2010).

Table 2.7-20 EXISTING PLUS PHASE 1 ILV ANALYSIS

Intersection	Existing				Existing + Phase 1			
	AM Peak Hour		PM Peak Hour		AM Peak		PM Peak	
	ILV/Hr	Operating Condition	ILV/Hr	Operating Condition	ILV/Hr	Operating Condition	ILV/Hr	Operating Condition
Otay Mesa Rd (E-W) @ Heritage Rd (N-S)	1,115	Stable Flow	1,049	Stable Flow	1,327	Unstable Flow	1,246	Unstable Flow
Otay Mesa Rd (E-W) @ Cactus Rd (N-S)	1,129	Stable Flow	1,055	Stable Flow	1,290	Unstable Flow	1,249	Unstable Flow
Otay Mesa Rd (E-W) @ Britannia Blvd (N-S)	708	Stable Flow	936	Stable Flow	1,001	Stable Flow	1,140	Stable Flow
Otay Mesa Rd (E-W) @ La Media Rd (N-S)	740	Stable Flow	924	Stable Flow	956	Stable Flow	1,122	Stable Flow
Otay Mesa Rd (E-W) @ Piper Ranch Rd (N-S)	696	Stable Flow	766	Stable Flow	1,031	Stable Flow	549	Stable Flow
Otay Mesa Rd (E-W) @ SR-125 SB (N-S)	701	Stable Flow	677	Stable Flow	808	Stable Flow	793	Stable Flow
Otay Mesa Rd (E-W) @ SR-125 NB (N-S)	417	Stable Flow	754	Stable Flow	587	Stable Flow	1,090	Stable Flow
Otay Mesa Rd (E-W) @ SR-905 Connector (N-S)	700	Stable Flow	911	Stable Flow	988	Stable Flow	1,343	Unstable Flow
Siempre Viva Rd (E-W) @ SR-905 SB to EB Siempre Viva Rd (N-S)	363	Stable Flow	463	Stable Flow	536	Stable Flow	601	Stable Flow
Siempre Viva Rd (E-W) @ SR-905 NB (N-S)	372	Stable Flow	483	Stable Flow	498	Stable Flow	626	Stable Flow

ILV/Hr = Intersecting Lane Vehicles per hour; < 1,200 ILV/Hr = Stable flow; 1,200 – 1,500 ILV/Hr = Unstable Flow; 1,500 ILV/Hr = Capacity; E-W = East-West; N-S = North-South
Source: Darnell & Associates, Inc, (September 20, 2010).

Table 2.7-21 EXISTING PLUS PROJECT PHASES 1 AND 2 INTERSECTION LEVEL OF SERVICE SUMMARY

Intersections	Traffic Control	Critical Move	Existing				Existing + Project Phases 1 and 2									
			AM Peak		PM Peak		AM Peak					PM Peak				
			Delay	LOS	Delay	LOS	Delay	LOS	Proj. Trips	Δ Delay	Sig.	Delay	LOS	Proj. Trips	Δ Delay	Sig.
Otay Mesa Rd (E-W) @ Heritage Rd (N-S)	Sig	Int	29.8	C	29.2	C	54.2	D	**1,322**	24.4	No	44.4	D	1,322	15.2	No
Otay Mesa Rd (E-W) @ Cactus Rd(N-S)	Sig	Int	9.0	A	11.4	B	31.8	C	1,365	22.8	No	13.4	B	1,365	2.0	No
Otay Mesa Rd (E-W) @ Britannia Blvd (N-S)	Sig	Int	7.3	A	16.4	B	7.9	A	1,408	0.6	No	17.2	B	1,408	0.8	No
Otay Mesa Rd (E-W) @ La Media Rd (N-S)	Sig	Int	21.6	C	26.3	C	18.0	B	1,473	(3.6)	No	24.4	C	1,473	(1.5)	No
Otay Mesa Rd (E-W) @ Piper Ranch Rd (N-S)	Sig	Int	9.8	A	6.0	A	13.4	B	1,494	3.6	No	6.7	A	1,494	0.7	No
Otay Mesa Rd (E-W) @ SR-125 SB (N-S)	Sig	Int	11.8	B	2.9	A	15.2	B	1,835	3.4	No	4.1	A	1,579	1.2	No
Otay Mesa Rd (E-W) @ SR-125 NB (N-S)	Sig	Int	0.9	A	5.7	A	3.4	A	1,238	2.5	No	47.9	D	1,750	42.2	No
Otay Mesa Rd (E-W) @ SR-905 (N-S)	Sig	Int	16.2	B	21.3	C	22.8	C	1,239	6.6	No	**110.4**	**F**	**1,751**	**89.1**	**Yes**
Otay Mesa Rd (E-W) @ Sanyo Av (N-S)	Sig	Int	4.1	A	12.6	B	8.1	A	1,068	4.0	No	**56.2**	**E**	**1,068**	**43.6**	**Yes**
Otay Mesa Rd (E-W) @ Enrico Fermi Dr (N-S)	Sig	Int	10.4	B	9.4	A	**75.3**	**E**	**854**	**64.9**	**Yes**	30.4	C	854	21.0	No
Airway Rd (E-W) @ Sanyo Av (N-S)	AWSC	EB	10.1	B	9.9	A	11.5	B	0	1.4		10.6	B	0	0.7	
		WB	8.1	A	9.1	A	8.7	A	43	0.6		10.1	B	171	1.0	
		NB	8.0	A	9.2	A	8.6	A	0	0.6	No	10.1	B	0	0.9	No
		SB	9.6	A	8.0	A	16.9	C	171	7.3		9.6	A	43	1.6	
		Int	9.3	A	9.1	A	13.4	B	214	4.1		10.1	B	214	1.0	
Airway Rd (E-W) @ Paseo De Las Americas (N-S)	OWSC	NBL	9.7	A	10.6	B	11.8	B	0	2.1	No	13.9	B	0	3.3	No
Airway Rd (E-W) @ Michael Faraday (N-S)	OWSC	NBL	9.6	A	9.6	A	11.5	B	0	1.9	No	11.5	B	0	1.9	No
Airway Rd (E-W) @ Enrico Fermi Dr (N-S)	Sig	Int	6.6	A	13.0	B	24.2	C	1,174	17.6	No	21.6	C	1,174	8.6	No
Siempre Viva Rd (E-W) @ SR-905 SB to EB Siempre Viva (N-S)	Sig	Int	7.0	A	8.5	A	12.2	B	704	5.2	No	8.9	A	256	0.4	No
Siempre Viva Rd (E-W) @ SR-905 SB to WB Siempre Viva (N-S)	OWSC	SB	14.3	B	13.3	B	14.6	B	0	0.3	No	15.5	C	0	2.2	No
Siempre Viva Rd (E-W) @ SR-905 NB Ramp (N-S)	Sig	Int	10.8	B	11.0	B	12.1	B	960	1.3	No	9.4	A	960	(1.6)	No
Siempre Viva Rd (E-W) @ Paseo De Las Americas (N-S)	Sig	Int	24.7	C	40.0	D	22.8	C	960	(1.9)	No	**230.3**	**F**	**960**	**190.3**	**Yes**
Siempre Viva Rd (E-W) @ Michael Faraday (N-S)	TWSC	NB	14.5	B	13.2	B	**151.2**	**F**	**0**	**136.7**	**Yes**	**46.4**	**E**	**0**	**33.2**	**Yes**
		SBL-T	15.9	C	12.3	B	**71.4**	**F**	**0**	**55.5**		**43.7**	**E**	**0**	**31.4**	
Siempre Viva Rd (E-W) @ Enrico Fermi Dr (N-S)	Sig	Int	12.6	B	13.7	B	34.3	C	1,066	21.7	No	27.8	C	1,066	14.1	No

LOS=Level of Service; Delay is measured in seconds/vehicle; sig=signalized; AWSC=All Way Stop Controlled; TWSC = Two-Way Stop-Controlled; OWSC=One Way Stop Controlled; Int = Intersection; NB = Northbound Approach; SB = Southbound Approach; EB = Eastbound Approach; WB = Westbound Approach; NBL = Northbound Left; SBL-T = Shared Southbound Left-Through; E-W = East-West Roadway; N-S = North-South Roadway; Δ Delay = Increase (decrease) in delay; Occasionally adding traffic to a critical movement optimizes the intersection resulting in a decrease in delay.

Source: Darnell & Associates, Inc, (September 20, 2010).

Table 2.7-22 EXISTING PLUS PHASES 1 AND 2 ILV ANALYSIS

Intersection	Existing				Existing + Phases 1-2			
	AM Peak Hour		PM Peak Hour		AM Peak		PM Peak	
	ILV/Hr	Operating Condition	ILV/Hr	Operating Condition	ILV/Hr	Operating Condition	ILV/Hr	Operating Condition
Otay Mesa Rd (E-W) @ Heritage Rd (N-S)	1,115	Stable Flow	1,049	Stable Flow	1,491	Unstable Flow	1,399	Unstable Flow
Otay Mesa Rd (E-W) @ Cactus Rd (N-S)	1,129	Stable Flow	1,055	Stable Flow	1,455	Unstable Flow	1,404	Unstable Flow
Otay Mesa Rd (E-W) @ Britannia Blvd (N-S)	708	Stable Flow	936	Stable Flow	1,164	Stable Flow	1,300	Unstable Flow
Otay Mesa Rd (E-W) @ La Media Rd (N-S)	740	Stable Flow	924	Stable Flow	1,124	Stable Flow	1,304	Unstable Flow
Otay Mesa Rd (E-W) @ Piper Ranch Rd (N-S)	696	Stable Flow	766	Stable Flow	1,291	Unstable Flow	949	Stable Flow
Otay Mesa Rd (E-W) @ SR-125 SB (N-S)	701	Stable Flow	677	Stable Flow	994	Stable Flow	986	Stable Flow
Otay Mesa Rd (E-W) @ SR-125 NB (N-S)	417	Stable Flow	754	Stable Flow	774	Stable Flow	1,352	Unstable Flow
Otay Mesa Rd (E-W) @ SR-905 NB Connector (N-S)	700	Stable Flow	911	Stable Flow	1,212	Unstable Flow	**1,680**	**Over Capacity**
Siempre Viva Rd (E-W) @ SR-905 SB to EB Siempre Viva Rd (N-S)	363	Stable Flow	463	Stable Flow	654	Stable Flow	607	Stable Flow
Siempre Viva Rd (E-W) @ SR-905 NB (N-S)	372	Stable Flow	483	Stable Flow	597	Stable Flow	779	Stable Flow

ILV/Hr = Intersecting Lane Vehicles per hour; < 1,200 ILV/Hr = Stable flow; 1,200 – 1,500 ILV/Hr = Unstable Flow; 1,500 ILV/Hr = Capacity; E-W = East-West; N-S = North-South
Source: Darnell & Associates, Inc, (September 20, 2010).

Table 2.7-23 EXISTING PLUS PROJECT PHASES 1 THROUGH 3 INTERSECTION LEVEL OF SERVICE SUMMARY

Intersections	Traffic Control	Critical Move	Existing				Existing + Project Phases 1 Through 3									
			AM Peak		PM Peak		AM Peak					PM Peak				
			Delay	LOS	Delay	LOS	Delay	LOS	Proj. Trips	Δ Delay	Sig.	Delay	LOS	Proj. Trips	Δ Delay	Sig.
Otay Mesa Rd (E-W) @ Heritage Rd (N-S)	Sig	Int	29.8	C	29.2	C	**99.9**	**F**	**1,956**	**70.1**	**Yes**	**77.8**	**E**	**1,956**	**48.6**	**Yes**
Otay Mesa Rd (E-W) @ Cactus Rd(N-S)	Sig	Int	9.0	A	11.4	B	**81.5**	**F**	**2,020**	**72.5**	**Yes**	16.0	B	2,020	4.6	No
Otay Mesa Rd (E-W) @ Britannia Blvd (N-S)	Sig	Int	7.3	A	16.4	B	36.0	D	2,084	28.7	No	36.1	D	2,084	19.7	No
Otay Mesa Rd (E-W) @ La Media Rd (N-S)	Sig	Int	21.6	C	26.3	C	18.6	B	2,178	(3.0)	No	33.2	C	2,178	6.9	No
Otay Mesa Rd (E-W) @ Piper Ranch Rd (N-S)	Sig	Int	9.8	A	6.0	A	44.0	D	2,208	34.2	No	9.4	A	2,208	3.4	No
Otay Mesa Rd (E-W) @ SR-125 SB (N-S)	Sig	Int	11.8	B	2.9	A	16.4	B	2,715	4.6	No	17.3	B	2,335	14.4	No
Otay Mesa Rd (E-W) @ SR-125 NB (N-S)	Sig	Int	0.9	A	5.7	A	2.9	A	1,831	2.0	No	**129.9**	**F**	**2,589**	**124.2**	**Yes**
Otay Mesa Rd (E-W) @ SR-905 (N-S)	Sig	Int	16.2	B	21.3	C	**89.7**	**F**	**1,831**	**73.9**	**Yes**	**239.1**	**F**	**2,589**	**217.8**	**Yes**
Otay Mesa Rd (E-W) @ Sanyo Av (N-S)	Sig	Int	4.1	A	12.6	B	11.4	B	1,578	7.3	No	**149.4**	**F**	**1,578**	**136.8**	**Yes**
Otay Mesa Rd (E-W) @ Enrico Fermi Dr (N-S)	Sig	Int	10.4	B	9.4	A	**212.2**	**F**	**1,262**	**201.8**	**Yes**	**111.6**	**F**	**1,262**	**102.2**	**Yes**
Airway Rd (E-W) @ La Media Rd (N-S)	AWSC	EB	11.1	B	14.5	B	11.5	B	0	0.4		15.4	C	0	0.9	
		WB	10.9	B	13.9	B	11.3	B	0	0.4		14.7	B	0	0.8	
		NB	11.4	B	15.4	C	12.8	B	51	1.4	No	16.7	C	13	1.3	No
		SB	13.3	B	12.2	B	14.2	B	13	0.9		13.8	B	51	1.6	
		Int	12.3	B	13.9	B	13.1	B	64	0.8		15.0	C	64	1.1	
Airway Rd (E-W) @ Sanyo Av (N-S)	AWSC	EB	10.1	B	9.9	A	12.3	B	0	2.2		11.0	B	0	1.1	
		WB	8.1	A	9.1	A	9.2	A	63	1.1		11.9	B	253	2.8	
		NB	8.0	A	9.2	A	8.9	A	0	0.9	No	11.0	B	0	1.8	No
		SB	9.6	A	8.0	A	26.7	D	253	17.1		10.5	B	63	2.5	
		Int	9.3	A	9.1	A	19.1	C	316	9.8		11.3	B	316	2.2	
Airway Rd (E-W) @ Paseo De Las Americas (N-S)	OWSC	NBL	9.7	A	10.6	B	13.0	B	0	3.3	No	15.9	C	0	5.3	No
Airway Rd (E-W) @ Michael Faraday (N-S)	OWSC	NBL	9.6	A	9.6	A	12.8	B	0	3.2	No	12.8	B	0	3.2	No
Airway Rd (E-W) @ Enrico Fermi Dr (N-S)	Sig	Int	6.6	A	13.0	B	**72.0**	**E**	**1,736**	**65.4**	**Yes**	**57.9**	**E**	**1,736**	**44.9**	**Yes**
Siempre Viva Rd (E-W) @ La Media Rd (N-S)	AWSC	EB	8.0	A	8.4	A	8.2	A	0	0.2		8.6	A	0	0.2	
		WB	7.8	A	8.5	A	8.0	A	0	0.2		8.8	A	0	0.3	
		NB	7.6	A	8.4	A	8.1	A	51	0.5	No	8.7	A	13	0.3	No
		SB	9.8	A	11.0	B	10.2	B	13	0.4		12.4	B	51	1.4	
		Int	9.2	A	9.9	A	9.4	A	64	0.2		10.9	B	64	1.0	
Siempre Viva Rd (E-W) @ SR-905 SB to EB Siempre Viva (N-S)	Sig	Int	7.0	A	8.5	A	21.2	C	1,042	14.2	No	9.2	A	378	0.7	No
Siempre Viva Rd (E-W) @ SR-905 SB to WB Siempre Viva (N-S)	OWSC	SB	14.3	B	13.3	B	14.7	B	0	0.4	No	16.0	C	0	2.7	No
Siempre Viva Rd (E-W) @ SR-905 NB Ramp (N-S)	Sig	Int	10.8	B	11.0	B	13.3	B	1,420	2.5	No	11.0	B	1,420	0.0	No
Siempre Viva Rd (E-W) @ Paseo De Las Americas (N-S)	Sig	Int	24.7	C	40.0	D	23.1	C	1,420	(1.6)	No	**405.0**	**F**	**1,420**	**365.0**	**Yes**
Siempre Viva Rd (E-W) @ Michael Faraday (N-S)	TWSC	NB	14.5	B	13.2	B	**ERR**	**F**	**0**	**-**	**Yes**	**299.3**	**F**	**0**	**286.1**	**Yes**
		SBL-T	15.9	C	12.3	B	**ERR**	**F**	**0**	**-**		**163.0**	**F**	**0**	**150.7**	
Siempre Viva Rd (E-W) @ Enrico Fermi Dr (N-S)	Sig	Int	12.6	B	13.7	B	**168.2**	**F**	**1,578**	**155.6**	**Yes**	**87.8**	**F**	**1,578**	**74.1**	**Yes**

LOS=Level of Service; Delay is measured in seconds/vehicle; sig=signalized; AWSC=All Way Stop Controlled; TWSC = Two-Way Stop-Controlled; OWSC=One Way Stop Controlled; Int = Intersection; NB = Northbound Approach; SB = Southbound Approach; EB = Eastbound Approach; WB = Westbound Approach; NBL = Northbound Left; SBL-T = Shared Southbound Left-Through; E-W = East-West Roadway; N-S = North-South Roadway; Δ Delay = Increase (decrease) in delay; Occasionally adding traffic to a critical movement optimizes the intersection resulting in a decrease in delay; Err = Delay too high for the software to calculate.

Source: Darnell & Associates, Inc, (September 20, 2010).

Table 2.7-24 EXISTING PLUS PHASES 1 THROUGH 3 ILV ANALYSIS

Intersection	Existing				Existing + Phases 1-3			
	AM Peak Hour		PM Peak Hour		AM Peak		PM Peak	
	ILV/Hr	Operating Condition	ILV/Hr	Operating Condition	ILV/Hr	Operating Condition	ILV/Hr	Operating Condition
Otay Mesa Rd (E-W) @ Heritage Rd (N-S)	1,115	Stable Flow	1,049	Stable Flow	**1,670**	**Over Capacity**	**1,567**	**Over Capacity**
Otay Mesa Rd (E-W) @ Cactus Rd (N-S)	1,129	Stable Flow	1,055	Stable Flow	**1,638**	**Over Capacity**	**1,586**	**Over Capacity**
Otay Mesa Rd (E-W) @ Britannia Blvd (N-S)	708	Stable Flow	936	Stable Flow	1,343	Unstable Flow	1,474	Unstable Flow
Otay Mesa Rd (E-W) @ La Media Rd (N-S)	740	Stable Flow	924	Stable Flow	1,308	Unstable Flow	**1,504**	**Over Capacity**
Otay Mesa Rd (E-W) @ Piper Ranch Rd (N-S)	696	Stable Flow	766	Stable Flow	**1,576**	**Over Capacity**	1,141	Stable Flow
Otay Mesa Rd (E-W) @ SR-125 SB (N-S)	701	Stable Flow	677	Stable Flow	1,198	Stable Flow	1,198	Stable Flow
Otay Mesa Rd (E-W) @ SR-125 NB (N-S)	417	Stable Flow	754	Stable Flow	978	Stable Flow	**1,638**	**Over Capacity**
Otay Mesa Rd (E-W) @ SR-905 Connector (N-S)	700	Stable Flow	911	Stable Flow	1,458	Unstable Flow	**2,048**	**Over Capacity**
Siempre Viva Rd (E-W) @ SR-905 SB to EB Siempre Viva Rd (N-S)	363	Stable Flow	463	Stable Flow	834	Stable Flow	668	Stable Flow
Siempre Viva Rd (E-W) @ SR-905 NB (N-S)	372	Stable Flow	483	Stable Flow	715	Stable Flow	949	Stable Flow

ILV/Hr = Intersecting Lane Vehicles per hour; < 1,200 ILV/Hr = Stable flow; 1,200 – 1,500 ILV/Hr = Unstable Flow; 1,500 ILV/Hr = Capacity; E-W = East-West; N-S = North-South
Source: Darnell & Associates, Inc, (September 20, 2010).

Table 2.7-25 EXISTING PLUS PROJECT PHASES 1 THROUGH 4 INTERSECTION LEVEL OF SERVICE SUMMARY

Intersections	Traffic Control	Critical Move	Existing				Existing + Project Phases 1 Through 4									
			AM Peak		PM Peak		AM Peak					PM Peak				
			Delay	LOS	Delay	LOS	Delay	LOS	Proj. Trips	Δ Delay	Sig.	Delay	LOS	Proj. Trips	Δ Delay	Sig.
Otay Mesa Rd (E-W) @ Heritage Rd (N-S)	Sig	Int	29.8	C	29.2	C	**141.1**	**F**	**2,491**	**111.3**	**Yes**	**112.9**	**F**	**2,491**	**83.7**	**Yes**
Otay Mesa Rd (E-W) @ Cactus Rd(N-S)	Sig	Int	9.0	A	11.4	B	**124.8**	**F**	**2,571**	**115.8**	**Yes**	41.9	D	2,571	30.5	No
Otay Mesa Rd (E-W) @ Britannia Blvd (N-S)	Sig	Int	7.3	A	16.4	B	**75.4**	**F**	**2,652**	**68.1**	**Yes**	**71.4**	**E**	**2,652**	**55.0**	**Yes**
Otay Mesa Rd (E-W) @ La Media Rd (N-S)	Sig	Int	21.6	C	26.3	C	44.5	D	**2,772**	22.9	**Yes**	**68.0**	**E**	**2,772**	**41.7**	**Yes**
Otay Mesa Rd (E-W) @ Piper Ranch Rd (N-S)	Sig	Int	9.8	A	6.0	A	**93.7**	**F**	**2,812**	**83.9**	**Yes**	19.3	B	2,812	13.3	No
Otay Mesa Rd (E-W) @ SR-125 SB (N-S)	Sig	Int	11.8	B	2.9	A	37.1	D	3,456	25.3	No	**65.6**	**E**	**2,974**	**62.7**	**Yes**
Otay Mesa Rd (E-W) @ SR-125 NB (N-S)	Sig	Int	0.9	A	5.7	A	5.9	A	2,331	5.0	No	**214.8**	**F**	**3,296**	**209.1**	**Yes**
Otay Mesa Rd (E-W) @ SR-905 (N-S)	Sig	Int	16.2	B	21.3	C	**145.5**	**F**	**2,331**	**129.3**	**Yes**	**368.9**	**F**	**3,296**	**347.6**	**Yes**
Otay Mesa Rd (E-W) @ Sanyo Av (N-S)	AWSC	Int	4.1	A	12.6	B	41.8	D	2,009	37.7	No	**231.4**	**F**	**2,009**	**218.8**	**Yes**
Otay Mesa Rd (E-W) @ Enrico Fermi Dr (N-S)	Sig	Int	10.4	B	9.4	A	**340.2**	**F**	**1,607**	**329.8**	**Yes**	**207.9**	**F**	**1,607**	**198.5**	**Yes**
Airway Rd (E-W) @ La Media Rd (N-S)	AWSC	EB	11.1	B	14.5	B	11.6	B	0	0.5		15.6	C	0	1.1	
		WB	10.9	B	13.9	B	11.4	B	0	0.5		14.9	B	0	1.0	
		NB	11.4	B	15.4	C	13.3	B	64	1.9	No	17.0	C	16	1.6	No
		SB	13.3	B	12.2	B	14.5	B	16	1.2		14.3	B	64	2.1	
		Int	12.3	B	13.9	B	13.4	B	80	1.1		15.4	C	80	1.5	
Airway Rd (E-W) @ Sanyo Av (N-S)	AWSC	EB	10.1	B	9.9	A	13.1	B	0	3.0		11.4	B	0	1.5	
		WB	8.1	A	9.1	A	9.7	A	80	1.6		14.9	B	322	5.8	
		NB	8.0	A	9.2	A	9.2	A	0	1.2	No	11.1	B	0	1.9	No
		SB	9.6	A	8.0	A	**46.0**	**E**	**322**	**36.4**		11.4	B	80	3.4	
		Int	9.3	A	9.1	A	30.4	D	402	21.1		13.2	B	402	4.1	
Airway Rd (E-W) @ Paseo De Las Americas (N-S)	OWSC	NBL	9.7	A	10.6	B	14.2	B	0	4.5	No	17.9	C	0	7.3	No
Airway Rd (E-W) @ Michael Faraday (N-S)	OWSC	NBL	9.6	A	9.6	A	14.2	B	0	4.6	No	14.3	B	0	4.7	No
Airway Rd (E-W) @ Enrico Fermi Dr (N-S)	Sig	Int	6.6	A	13.0	B	**151.8**	**F**	**2,210**	**145.2**	**Yes**	**143.4**	**F**	**2,210**	**130.4**	**Yes**
Siempre Viva Rd (E-W) @ La Media Rd (N-S)	AWSC	EB	8.0	A	8.4	A	8.2	A	0	0.2		8.6	A	0	0.2	
		WB	7.8	A	8.5	A	8.1	A	0	0.3		8.9	A	0	0.4	
		NB	7.6	A	8.4	A	8.2	A	64	0.6	No	8.7	A	16	0.3	No
		SB	9.8	A	11.0	B	10.3	B	16	0.5		12.9	B	64	1.9	
		Int	9.2	A	9.9	A	9.4	A	80	0.2		11.2	B	80	1.3	
Siempre Viva Rd (E-W) @ SR-905 SB to EB Siempre Viva (N-S)	Sig	Int	7.0	A	8.5	A	53.0	D	1,326	46.0	No	9.6	A	482	1.1	No
Siempre Viva Rd (E-W) @ SR-905 SB to WB Siempre Viva (N-S)	OWSC	SB	14.3	B	13.3	B	14.8	B	0	0.5	No	16.5	C	0	3.2	No
Siempre Viva Rd (E-W) @ SR-905 NB Ramp (N-S)	Sig	Int	10.8	B	11.0	B	14.3	B	1,808	3.5	No	11.1	B	1,808	0.1	No
Siempre Viva Rd (E-W) @ Paseo De Las Americas (N-S)	Sig	Int	24.7	C	40.0	D	24.1	C	1,808	(0.6)	No	**571.4**	**F**	**1,808**	**531.4**	**Yes**
Siempre Viva Rd (E-W) @ Michael Faraday (N-S)	TWSC	NB	14.5	B	13.2	B	**ERR**	**F**	**0**	**-**	**Yes**	**ERR**	**F**	**0**	**-**	**Yes**
		SBL-T	15.9	C	12.3	B	**ERR**	**F**	**0**	**-**		**794.2**	**F**	**0**	**781.9**	
Siempre Viva Rd (E-W) @ Enrico Fermi Dr (N-S)	Sig	Int	12.6	B	13.7	B	**287.6**	**F**	**2,009**	**275.0**	**Yes**	**194.2**	**F**	**2,009**	**180.5**	**Yes**

LOS=Level of Service; Delay is measured in seconds/vehicle; sig=signalized; AWSC=All Way Stop Controlled; TWSC = Two-Way Stop-Controlled; OWSC=One Way Stop Controlled; Int = Intersection; NB = Northbound Approach; SB = Southbound Approach; EB = Eastbound Approach; WB = Westbound Approach; NBL = Northbound Left; SBL-T = Shared Southbound Left-Through; E-W = East-West Roadway; N-S = North-South Roadway; Δ Delay = Increase (decrease) in delay; Occasionally adding traffic to a critical movement optimizes the intersection resulting in a decrease in delay; Err = Delay too high for the software to calculate.

Source: Darnell & Associates, Inc, (September 20, 2010).

Table 2.7-26 EXISTING PLUS PHASES 1 THROUGH 4 ILV ANALYSIS

Intersection	Existing				Existing + Phases 1-4			
	AM Peak Hour		PM Peak Hour		AM Peak		PM Peak	
	ILV/Hr	Operating Condition	ILV/Hr	Operating Condition	ILV/Hr	Operating Condition	ILV/Hr	Operating Condition
Otay Mesa Rd (E-W) @ Heritage Rd (N-S)	1,115	Stable Flow	1,049	Stable Flow	**1,822**	**Over Capacity**	**1,709**	**Over Capacity**
Otay Mesa Rd (E-W) @ Cactus Rd (N-S)	1,129	Stable Flow	1,055	Stable Flow	**1,791**	**Over Capacity**	**1,740**	**Over Capacity**
Otay Mesa Rd (E-W) @ Britannia Blvd (N-S)	708	Stable Flow	936	Stable Flow	1,493	Unstable Flow	**1,622**	**Over Capacity**
Otay Mesa Rd (E-W) @ La Media Rd (N-S)	740	Stable Flow	924	Stable Flow	1,463	Unstable Flow	**1,671**	**Over Capacity**
Otay Mesa Rd (E-W) @ Piper Ranch Rd (N-S)	696	Stable Flow	766	Stable Flow	**1,817**	**Over Capacity**	1,302	Unstable Flow
Otay Mesa Rd (E-W) @ SR-125 SB (N-S)	701	Stable Flow	677	Stable Flow	1,371	Unstable Flow	1,376	Unstable Flow
Otay Mesa Rd (E-W) @ SR-125 NB (N-S)	417	Stable Flow	754	Stable Flow	1,150	Stable Flow	**1,880**	**Over Capacity**
Otay Mesa Rd (E-W) @ SR-905 Connector (N-S)	700	Stable Flow	911	Stable Flow	**1,664**	**Over Capacity**	**2,358**	**Over Capacity**
Siempre Viva Rd (E-W) @ SR-905 SB to EB Siempre Viva Rd (N-S)	363	Stable Flow	463	Stable Flow	976	Stable Flow	720	Stable Flow
Siempre Viva Rd (E-W) @ SR-905 NB (N-S)	372	Stable Flow	483	Stable Flow	824	Stable Flow	1,091	Stable Flow

ILV/Hr = Intersecting Lane Vehicles per hour; < 1,200 ILV/Hr = Stable flow; 1,200 – 1,500 ILV/Hr = Unstable Flow; 1,500 ILV/Hr = Capacity; E-W = East-West; N-S = North-South
Source: Darnell & Associates, Inc, (September 20, 2010).

Table 2.7-27 INTERNAL INTERSECTION LOS SUMMARY

Intersection	Traffic Control	Critical Move	AM Peak		PM Peak	
			Delay	LOS	Delay	LOS
Existing + Project Phase 1						
Airway Rd (E-W) @ Alta Rd (N-S)	OWSC	NB	13.1	B	14.7	B
Siempre Viva Rd (E-W) @ Alta Rd (N-S)	AWSC	EB	17.8	C	9.4	A
		WB	9.3	A	17.3	C
		NB	9.4	A	10.3	B
		SB	10.8	B	9.5	A
		Int.	14.8	B	14.7	B
Siempre Viva Rd (E-W) @ Street 'B' (N-S)	TWSC	NB	20.3	C	29.5	D
		SB	11.5	B	10.5	B
Existing + Project Phases 1-2						
Airway Rd (E-W) @ Alta Rd (N-S)	OWSC	NB	26.4	D	24.1	C
Airway Rd (E-W) @ Street 'B'	OWSC	NB	11.7	B	9.0	A
Siempre Viva Rd (E-W) @ Alta Rd (N-S)	AWSC	EB	20.7	C	10.4	B
		WB	8.4	A	13.7	B
		NB	10.1	B	16.4	C
		SB	9.1	A	9.7	A
		Int.	18.4	C	13.8	B
Siempre Viva Rd (E-W) @ Street 'B' (N-S)	TWSC	NB	24.8	C	27.3	D
		SB	27.8	D	12.3	B
Siempre Viva Rd (E-W) @ Street 'C' (N-S)	OWSC	NB	9.2	A	9.3	A
Siempre Viva Rd (E-W) @ Airway Rd (N-S)	OWSC	EB	12.1	B	16.8	C
Street 'A' (E-W) @ Alta Rd (N-S)	OWSC	WB	8.4	A	8.9	A
Existing + Project Phases 1-3						
Airway Rd (E-W) @ Alta Rd (N-S)	OWSC	NB	31.7	D	23.6	C
Airway Rd (E-W) @ Street 'B'	OWSC	NB	13.7	B	9.2	A
Siempre Viva Rd (E-W) @ Alta Rd (N-S)	TWSC	NBL	29.7	D	23.1	C
		NBT-R	17.9	C	14.2	B
		SBL	18.6	C	15.7	C
		SBT-R	34.3	D	15.6	C
Siempre Viva Rd (E-W) @ Street 'B' (N-S)	TWSC	NB	18.4	C	26.8	D
		SB	17.9	C	11.7	B
Siempre Viva Rd (E-W) @ Street 'C' (N-S)	OWSC	NB	10.2	B	9.5	A
Siempre Viva Rd (E-W) @ Airway Rd (N-S)	OWSC	EB	26.5	D	25.5	D
Street 'A' (E-W) @ Alta Rd (N-S)	OWSC	WB	8.9	A	12.4	B
Existing + Project Build Out (Phases 1-4)						
Airway Rd (E-W) @ Alta Rd (N-S)	Sig	Int.	2.1	A	10.2	B
Airway Rd (E-W) @ Street "B"	OWSC	NB	17.4	C	9.6	A
Siempre Viva Rd (E-W) @ Alta Rd (N-S)	Sig.	Int.	8.5	A	20.3	C
Siempre Viva Rd (E-W) @ Street 'B' (N-S)	AWSC	EB	27.3	D	12.1	B
		WB	9.3	A	18.5	C
		NB	10.3	B	15.4	C
		SB	10.6	B	15.9	C
		Int.	23.2	C	16.2	C
Siempre Viva Rd (E-W) @ Street 'C' (N-S)	OWSC	NB	13.4	B	10.3	B
Siempre Viva Rd (E-W) @ Airway Rd (N-S)	Sig	Int.	29.0	C	20.5	C
Street 'A' (E-W) @ Alta Rd (N-S)	OWSC	WB	8.8	A	12.1	B

Delay is measured in seconds/vehicle; LOS=Level of Service; sig=signalized; AWSC = All-Way Stop-Controlled;
TWSC = Two-Way Stop-Controlled; OWSC=One Way Stop Controlled; sig – Signalized; Int = Intersection; NB = Northbound Approach;
SB = Southbound Approach; EB = Eastbound Approach; WB = Westbound Approach; NBL = Northbound Left; SBL = Southbound Left
NBT-R = Shared Northbound Through-Right; SBT-R = Shared Southbound Through-Right; NBL-R = Shared Northbound Left Right
E-W = East-West Roadway; N-S = North-South Roadway
(a) Cumulative (2020) analysis assumed Otay Business Park was developed at 13%.
Source: Darnell & Associates, Inc, (September 20, 2010).

Table 2.7-28 LIST OF APPROVED AND PENDING PROJECTS DAILY TRIP GENERATION

Map ID #	Project Name	County Project #	Project Location	# Acres	Land Use	Trip Generation		
						Total ADT	% Cumulative Traffic applied to year 2020	
							%	ADT
Projects Processing Site Plans								
1	California Crossings	P06-102 TPM 21046	NW Corner of Otay Mesa Rd & Harvest Rd	29.6 Acres	325.502 ksf of Community Shopping Ctr	22,785	100%	22,785
2	CCA San Diego Correctional Facility	MPA 09-029 P 06-074	n/o Calzada De La Fuente, e/o Alta Rd	37.0 Acres	2,132 Bed Correctional Detention Facility	2,323	100%	2,323
3	COPART County Sales Yard Time Extension (a)	P 88-020W1	SW Corner of Otay Mesa Rd & Alta Rd	38.2 Acres	Auto Auction	846	100%	846
4	FEDEX Site Plan	S08-018	NE Corner of Airway Rd & Paseo De Las Americas	18.9 Acres	FEDEX Distribution Center	1,598	100%	1,598
5	Insurance Auto Auctions	P00-012TE	NW Corner of Otay Mesa Rd & Alta Rd	38.2 Acres	Auto Auction	354	100%	354
6	Salvage Yards/ National Enterprises Recycling	P 98-001	East & West Side of Alta Rd, n/o Otay Mesa Rd	162.0 Acres	Auto Recycling & Salvage Yards	2,408	100%	2,408
7	Sunroad Interim Uses -Sunroad Centre I Harvest Ranch Nursery	P 09-009 P 09-005	n/o Otay Mesa Rd btwn Harvest Rd & Vann Centre Blvd	138.0 Acres	Nursery	14	100%	14
8	Travel Plaza	P 98-024W1 TPM 20414	e/o Enrico Fermi Drive, btwn Otay Mesa Rd & Airway Rd	83.6 Acres	Truck Stop	5,116	100%	5,116
9	Vulcan	S 07-038	NE quadrant of Lone Star Rd (Paseo De La Fuente) & Otay Mesa Rd	12.7 Acres	Asphalt & Concrete Plant	1,078	100%	1,078
			Sub-Total:	**558.2 Acres**		**36,522**	**100%**	**36,522**
Projects Processing Tentative Maps								
10	International Industrial Park	TM 5549	n/o Lone Star Rd btwn Vann Centre Blvd & e/o Enrico Fermi Dr	170.6 Acres	111.05 Net Acres Business/Technology Park	13,326	13%	1,732
11	OMC Properties	TPM 21140	NE Corner of Otay Mesa Rd & Alta Rd	49.8 Acres	30.1 Acres Technology Business Park & 8.4 Acres Commercial Retail	9,380	13%	1,219
12	Otay Business Park	TM 5505	s/o Airway Rd, East of Alta Rd	161.6 Acres	2092.9 ksf of Industrial/ Business Park	33,486	13%	4,353
13	Otay Crossings Commerce Park	TM 5405 SPA 04-006	SE Quadrant of Otay Mesa Rd & Alta Rd	311.4 Acres	Mixed Industrial & Temporary Truck Parking	21,279	13%	2,766
14	Sunroad/Otay Tech Centre	SPA 07-003 TM 5538	n/o Otay Mesa Rd btwn Harvest Rd & Vann Centre Blvd	253.1 Acres	130 Acres Technology Business Park & 27 Acres Commercial Retail	30,566	13%	3,974
15	Piper Otay Park	TM 5527	NE quadrant of Otay Mesa Rd & Piper Ranch Rd	25.0 Acres	Light Industrial	1,612	13%	210
16	South County Commerce Centre	TM 5394R	SW Corner of Otay Mesa Rd & Enrico Fermi Dr	80.0 Acres	Industrial	7,159	13%	931
17	Saeed Revised Map	TM 5304R	n/o Airway Rd btwn Paseo De Las Americas & Michael Faraday Dr	16.1 Acres	Industrial	2,602	13%	338
			Sub-Total:	**1,067.6 Acres**		**119,410**	**13%**	**15,523**
			Grand-Total:	**1,625.8 Acres**	-	**155,932**	**-**	**52,045**

(a) Existing Interim Use processing a time Extension
NW = Northwest; NE = Northeast; SW = Southwest; SE = Southeast; n/o = north of; s/o = south of; e/o = East of; btwn = between
Source: Darnell & Associates, Inc, (September 20, 2010).

Table 2.7-29 CUMULATIVE (2020) WITH SR-905 ROADWAY SEGMENT DAILY LOS SUMMARY

Roadway Segment	Class	Capacity (LOS E)	Cumulative Without Project			Cumulative With Project						
			ADT	V/C	LOS	ADT	V/C	LOS	Δ ADT	Δ V/C	Project Trips (d)	Cuml Impact?
Otay Mesa Rd												
Heritage Rd to Cactus Rd	6P	60,000	29,729	0.50	B	29,860	0.50	B	131	0.00	1,005	No
Cactus Rd to Britannia	6P	60,000	32,699	0.54	B	32,830	0.55	B	131	0.01	1,005	No
Old Otay Mesa Rd												
SR-125 to Harvest Rd	4M(m)	47,000(a)	33,035	0.70	C	33,340	0.71	C	305	0.01	2,344	No
Harvest Rd to Sanyo Av	4M	37,000	12,565	0.34	A	12,870	0.35	A	305	0.01	2,344	No
Sanyo Av to Vann Centre Blvd	LC	16,200	4,965	0.31	C	5,270	0.33	C	305	0.02	2,344	No
Vann Centre Blvd to Michael Faraday Dr	LC	16,200	5,132	0.32	C	5,480	0.34	C	348	0.02	2,679	No
Michael Faraday Dr to Enrico Fermi Dr	LC	16,200	4,502	0.28	C	4,850	0.30	C	348	0.02	2,679	No
Enrico Fermi Dr to Alta Rd	LC	16,200	**15,755**	**0.97**	**E**	**16,060**	**0.99**	**E**	**305**	**0.02**	**2,344**	**Yes**
Airway Road												
La Media Rd to SR-905	2C	15,000	9,569	0.64	C	9,700	0.65	C	131	0.01	1,005	No
SR-905 to Sanyo Ave	2C	10,000	6,469	0.65	C	6,600	0.66	C	131	0.01	1,005	No
Sanyo Ave to Paseo De Las Americas	4M	40,000	15,725	0.39	B	16,030	0.40	B	305	0.01	2,344	No
Paseo De Las Americas to Michael Faraday Dr	4M	37,000	3,785	0.10	A	4,090	0.11	A	305	0.01	2,344	No
Michael Faraday Dr to Enrico Fermi Dr	LC	16,200	5,032	0.31	C	5,380	0.33	C	348	0.02	2,679	No
Enrico Fermi Dr to Arway Pl	4C	34,200	168	0.00	C	1,300	0.04	A	1,132	0.04	8,706	No
Airway Pl to Alta Rd	LC	16,200	88	0.01	A	1,220	0.08	A	1,132	0.07	8,706	No
Siempre Viva Road												
Drucker Ln to SR-905	6P	60,000	21,093	0.35	A	21,180	0.35	A	87	0.00	670	No
SR-905 NB to Paseo de las Americas	6P	60,000	50,573	0.84	D	53,620	0.89	D	3,047	0.05	23,440	No
Paseo de las Americas to Michael Faraday Dr	4C	30,000	19,089	0.64	C	22,180	0.74	D	3,091	0.10	23,775	No
Michael Faraday Dr to Enrico Fermi Dr	4C	30,000	15,956	0.53	C	19,090	0.64	C	3,134	0.11	24,110	No
Enrico Fermi Dr to Arway Pl	LC	16,200	689	0.04	A	3,910	0.24	B	3,221	0.20	24,780	No
Airway Pl to Alta Rd	LC	16,200	9	0.00	A	3,230	0.20	B	3,221	0.20	24,780	No
Heritage Road												
Sikorsky Street to Otay Mesa Road	4C(m)	35,000 (B)	28,493	0.81	D	28,580	0.82	D	87	0.01	670	No
Britannia Boulevard												
Otay Mesa Road to SR-905	6P	60,000	15,039	0.25	A	15,170	0.25	A	131	0.00	1,005	No
SR-125												
North of Otay Mesa Rd	4-FWY	(c)	13,229	0.14	A	13,490	0.15	A	261	0.01	2,009	No
Existing State Route 905												
South of Siempre Viva Rd	4-FWY	(c)	75,390	0.86	D	76,130	0.86	D	740	0.00	5,693	No
New State Route 905												
West of Britannia	6-FWY	(c)	113,204	0.86	D	115,250	0.87	D	2,046	0.01	15,738	No
Britannia to La Media	6-FWY	(c)	100,020	0.76	C	102,240	0.77	C	2,220	0.01	17,078	No
La Media to Siempre Viva Rd	6-FWY	(c)	**87,940**	**0.67**	**C**	90,160	0.68	C	2,220	0.01	17,078	No
Sanyo Avenue												
Otay Mesa Rd to Airway Rd	4C	30,000	16,046	0.53	C	16,220	0.54	C	174	0.01	1,339	No
Enrico Fermi Drive												
Otay Mesa Rd to Airway Rd	TC	19,000	**16,046**	**0.84**	**E**	**16,830**	**0.89**	**E**	**784**	**0.05**	**6,027**	**Yes**
Alta Road												
Calzada De La Fuente to Lone Star Rd (Paseo De La Fuente)	TC	19,000	10,219	0.54	D	10,350	0.54	D	131	0.00	3,563	No
Lone Star Rd (Paseo De La Fuente) to Otay Mesa Rd	LC	16,200	9,819	0.61	D	9,950	0.61	D	131	0.00	3,163	No

SBX = South Bay Expressway; ADT= Average Daily Traffic; LOS= Level of Service; V/C = Volume-to LOS E Capacity Ratio; ΔV/C = increase (decrease) in V/C due to Project traffic; 6-FWY = 6-Lane Freeway: 4-FWY = 4-Lane Freeway; 6P = 6-Lane Prime Arterial; 4M(m) = Modified 4-Lane Major Road; 4M = 4-Lane Major Arterial; C = Collector; 4C = 4-Lane Collector; 2C= 2-Lane Collector; LC = Light Collector; 4I/C(m)=4-Lane Modified Industrial/Commercial Collector; Cuml. Impact = Identifies whether there is a significant cumulative impact

(a) Additional lanes may be provided to accommodate turning movements and freeway access; hence the roadway capacity 47,000 for County at LOS E (half-way between a 4-lane Major & 6-Lane Prime Arterial).

(b) This segment of Heritage Road provides 2 Northbound through lanes, 1 Southbound left turn lane, 1 Southbound through lane, 2 Southbound right turn lanes, and a painted median; hence, the roadway capacity was assumed to be 35,000 ADT at LOS E (half-way between a 4-lane Collector & 4-lane Major Arterial).

(c) Capacity based on Caltrans District 11 & HCM procedures, See Appendix J for LOS calculations

(d) Project Traffic is representative of what the project would assign to the roadway network if 100% of the project was developed by the year 2020, See Figure 11 in Section II, cumulative analysis assumes Otay Business Park is developed at 13%

Source: Darnell & Associates, Inc, (September 20, 2010).

Table 2.7-30 CUMULATIVE (2020) WITH SR-905 PROJECT BUILDOUT INTERSECTION LOS SUMMARY

Intersections	Traffic Control	Critical Move	Existing				Cumulative With Project											
			AM Peak		PM Peak		AM Peak						PM Peak					
			Delay	LOS	Delay	LOS	Delay	LOS	Δ Delay	Proj. Trips(a)	Proj. Trips(b)	Cum Impact	Delay	LOS	Δ Delay	Proj. Trips (a)	Proj. Trips (b)	Cum Impact
Otay Mesa Rd (E-W) @ Heritage Rd (N-S)	Sig	Int	22.3	C	22.2 9.2	C	22.5	C	0.2	15	120	NO	22.2	C	0.0	15	120	NO
Otay Mesa Rd (E-W) @ Cactus Rd(N-S)	Sig	Int	5.1	A	10.9	B	5.1	A	0.0	16	120	NO	10.8	B	(0.1)	16	120	NO
Otay Mesa Rd (E-W) @ Britannia Blvd (N-S)	Sig	Int	8.4	A	12.5	B	8.6	A	0.2	16	120	NO	12.6	B	0.1	16	120	NO
Otay Mesa Rd (E-W) @ SR-125 SB (N-S)	Sig	Int	11.0	B	6.9	A	11.2	B	0.2	30	233	NO	7.3	A	0.4	11	88	NO
Otay Mesa Rd (E-W) @ SR-125 NB (N-S)	Sig	Int	2.9	A	3.4	A	3.0	A	0.1	36	281	NO	3.3	A	(0.1)	36	281	NO
Otay Mesa Rd (E-W) @ Harvest Rd (N-S)	Sig	Int	14.1	B	23.7	C	14.1	B	0.0	36	281	NO	23.3	C	(0.4)	36	281	NO
Otay Mesa Rd (E-W) @ Sanyo Av (N-S)	Sig	Int	18.3	B	46.5	D	18.9	B	0.6	52	401	NO	52.6	D	6.1	52	401	NO
Otay Mesa Rd (E-W) @Vann Centre Blvd (N-S)	OWSC	SB	18.5	C	**63.7**	**E**	20.6	C	2.1	4	32	NO	**73.0**	**E**	**9.3**	**1**	**8**	**YES**
Otay Mesa Rd (E-W) @ Michael Faraday (N-S)	OWSC	NB	20.8	C	27.5	D	21.8	C	1.0	0	0	NO	29.1	D	1.6	0	0	NO
Otay Mesa Rd (E-W) @ Enrico Fermi Dr (N-S)	Sig	Int	24.8	C	21.1	C	30.1	C	5.3	77	602	NO	22.6	C	1.5	77	602	NO
Otay Mesa Rd (E-W) @ Alta Rd (N-S)	AWSC	**EB**	**347.6**	**F**	**210.0**	**F**	**363.4**	**F**	**15.8**	**5**	**40**	**YES**	**230.0**	**F**	**20.0**	**21**	**160**	**YES**
		WB	13.5	B	17.5	C	13.9	B	0.4	4	32		17.5	C	131	1	8	
		NB	13.7	B	22.5	C	140.0	B	0.3	4	32		22.6	C	0.1	1	8	
		SB	31.5	D	**275.6**	**E**	34.8	D	3.3	13	96		**279.3**	**F**	**3.7**	**3**	**24**	
		Int	**203.3**	**F**	**194.6**	**F**	**211.2**	**F**	**7.9**	**26**	**200**		**203.4**	**F**	**8.8**	**26**	**200**	
Airway Rd (E-W) @ La Media Rd (N-S)	AWSC	EB	11.8	B	12.9	B	12.0	B	0.2	4	32	NO	13.0	B	0.1	1	8	NO
		WB	13.7	B	25.9	D	13.8	B	0.1	2	16		27.1	D	1.2	8	64	
		NB	12.3	B	15.7	C	12.4	B	0.1	0	0		15.9	C	0.2	0	0	
		SB	13.3	B	11.9	B	13.5	B	0.2	4	32		12.0	B	0.1	1	8	
		Int	13.0	B	18.6	C	13.1	B	0.1	10	80		19.3	C	0.7	10	80	
Airway Rd (E-W) @ Sanyo Ave (N-S)	AWSC	EB	20.3	C	20.8	C	21.5	C	1.2	13	96	**YES**	21.2	C	0.4	3	**24**	**YES**
		WB	**59.9**	**F**	**151.4**	**F**	**63.6**	**F**	**3.7**	**7**	**56**		**165.5**	**F**	**14.1**	**30**	**225**	
		NB	13.7	B	**188.4**	**F**	13.8	B	0.1	0	0		**191.2**	**F**	**2.8**	**0**	**0**	
		SB	**290.8**	**F**	**43.8**	**E**	**312.8**	**F**	**22.0**	**17**	**129**		**46.0**	**E**	**2.2**	**4**	**32**	
		Int	**143.2**	**F**	**127.8**	**F**	**153.8**	**F**	**10.6**	**37**	**281**		**135.0**	**F**	**7.2**	**37**	**281**	
Airway Rd (E-W) @ Paseo De Las Americas (N-S)	OWSC / TWSC (b)	NBL	**748.6**	**F**	**Err**	**F**	**837.4**	**F**	**88.8**	**0**	**0**	**YES** (c)	**Err**	**F**	**-**	**0**	**0**	**YES** (c)
		SB	19.1	C	30.5	D	20.1	C	1.0	0	**0**		33.8	D	3.3	0	0	
Airway Rd (E-W) @ Michael Faraday (N-S)	OWSC	NBL	15.0	B	16.5	C	15.9	C	0.9	0	0	NO	17.9	C	1.4	0	0	NO
Airway Rd (E-W) @ Enrico Fermi Dr (N-S)	Sig	Int	19.1	B	26.1	C	20.4	C	1.3	135	1,045	NO	23.9	C	(2.2)	135	1,045	NO
Siempre Viva Rd (E-W) @ SR-905 SB to EB Siempre Viva (N-S)	Sig	Int	8.7	A	15.9	B	9.3	A	0.6	241	1,857	NO	16.5	B	0.6	134	1,037	NO
Siempre Viva Rd (E-W) @ SR-905 SB to WB Siempre Viva (N-S)	OWSC	SB	31.0	D	17.4	C	32.2	D	1.2	0	0	NO	18.9	C	1.5	0	0	NO
Siempre Viva Rd (E-W) @ SR-905 NB Ramp (N-S)	Sig	Int	13.2	B	17.1	B	13.9	B	0.7	366	2,814	NO	14.7	B	(2.4)	365	2,814	NO
Siempre Viva Rd (E-W) @ Paseo De Las Americas (N-S)	Sig	Int	49.9	D	45.1	D	47.3	D	(2.6)	371	2,853	NO	51.9	D	6.8	371	2,853	NO
Siempre Viva Rd (E-W) @ Michael Faraday (N-S)	TWSC	NB	**412.2**	**F**	**388.6**	**F**	**Err**	**F**	**-**	**0**	**0**	**YES**	**Err**	**F**	**-**	**0**	**0**	**YES**
		SBL-T	**152.8**	**F**	**59.3**	**F**	**Err**	**F**	**-**	**4**	**32**		**247.5**	**F**	**188.2**	**1**	**8**	
Siempre Viva Rd (E-W) @ Enrico Fermi Dr (N-S)	Sig	Int	19.2	B	27.2	C	17.1	B	(2.1)	386	2,973	NO	28.9	C	1.7	386	2,973	NO
Alta Rd (N-S) @ Lone Star Rd (Paseo De La Fuente) (E-W)	Sig	Int	14.4	B	23.3	C	14.4	B	0.0	16	120	NO	23.5	C	0.2	16	120	NO

LOS=Level of Service; Delay is measured in seconds/vehicle; sig=signalized; AWSC=All Way Stop Controlled; TWSC = Two-Way Stop-Controlled; OWSC=One Way Stop Controlled; Δ Delay = Increase (Decrease) in Delay due to the addition of 13% of Project traffic; Int = Intersection; NB = Northbound Approach; SB = Southbound Approach; EB = Eastbound Approach; WB = Westbound Approach; NBL-T = Northbound Left-Through; SBL-T = Southbound Left-Through; SBX = South Bay Expressway; E-W = East-West Roadway; N-S = North-South Roadway; Err = Delay is too high for the software to calculate.

(a) Project Traffic is representative of what the Project would assign to the roadway network if 13% of the Project was developed by the year 2020. (b) Project Traffic is representative of what the Project would assign to the roadway network if 100% of the Project was developed by the year 2020. (c) Although project does not add traffic to the critical movement, it adds traffic to the intersection and is therefore considered to be significant.

Source: Darnell & Associates, Inc, (September 20, 2010).

Table 2.7-31 CUMULATIVE (2020) WITH SR-905 ILV ANALYSIS

Intersection	Cumulative Without Project				Cumulative With Project			
	AM Peak		PM Peak		AM Peak		PM Peak	
	ILV/Hr	Operating Condition	ILV/Hr	Operating Condition	ILV/Hr	Operating Condition	ILV/Hr	Operating Condition
Otay Mesa Rd (E-W) @ SR-125 SB (N-S)	516	Stable Flow	506	Stable Flow	517	Stable Flow	507	Stable Flow
Otay Mesa Rd (E-W) @ SR-125 NB (N-S)	601	Stable Flow	728	Stable Flow	615	Stable Flow	730	Stable Flow
Siempre Viva Rd (E-W) @ SR-905 SB to EB Siempre Viva Rd (N-S)	578	Stable Flow	1,065	Stable Flow	687	Stable Flow	1,000	Stable Flow
Siempre Viva Rd (E-W) @ SR-905 NB (N-S)	750	Stable Flow	815	Stable Flow	824	Stable Flow	930	Stable Flow

ILV/Hr = Intersecting Lane Vehicles per hour; E-W = East-West; N-S = North-South
< 1,200 ILV/Hr = Stable flow;
1,200 – 1,500 ILV/Hr = Unstable Flow;
1,500 ILV/Hr = Capacity;
Source: Darnell & Associates, Inc, (September 20, 2010).

Table 2.7-32 2030 WITH PROJECT BUILDOUT ROADWAY SEGMENT DAILY LOS SUMMARY

Roadway Segment	Class	Capacity (LOS E)	2030 w/o Project			2030 + Project Build Out (Phases 1 – 4)					
			ADT	V/C	LOS	Proj. Tr	ADT	V/C	LOS	ΔV/C	Sig
Otay Mesa Rd											
Piper Ranch Rd to SR-125	6P	57,000	26,565	0.47	B	335	26,900	0.47	B	0.00	No
SR-125 to Harvest Rd	6P	57,000	41,305	0.72	C	335	41,640	0.73	C	0.01	No
Harvest Rd to Sanyo Ave	6P	57,000	20,165	0.35	A	335	20,500	0.36	A	0.01	No
Sanyo Ave to Vann Centre	6P	57,000	23,065	0.40	B	335	23,400	0.41	B	0.01	No
Vann Centre to Enrico Fermi Dr	6P	57,000	20,630	0.36	A	670	21,300	0.37	A	0.01	No
Enrico Fermi Dr to Alta Rd	4M	37,000	13,330	0.36	A	670	14,000	0.38	A	0.02	No
Airway Road											
SR-905 to Sanyo Ave	4M	40,000	32,495	0.81	D	1,005	33,500	0.84	D	0.03	No
Sanyo Ave to Paseo de Las Americas	4M	40,000	8,856	0.22	A	2,344	11,200	0.28	A	0.06	No
Paseo de Las Americas to Michael Faraday Dr	4M	37,000	12,356	0.33	A	2,344	14,700	0.40	A	0.07	No
Michael Faraday to Enrico Fermi Dr	4M	37,000	10,221	0.28	A	2,679	12,900	0.35	A	0.07	No
Enrico Fermi Dr to Airway Pl	4M	37,000	977	0.03	A	5,023	6,000	0.16	A	0.13	No
Airway Pl to Alta Rd	4M	37,000	977	0.03	A	5,023	6,000	0.16	A	0.13	No
Siempre Viva Road											
Drucker Ln to SR-905	6P	60,000	54,330	0.91	D	670	55,000	0.92	D	0.01	No
SR-905 to Paseo de Las Americas	6P	60,000	51,986	0.87	D	3,014	55,000	0.92	D	0.05	No
Paseo de Las Americas to Michael Faraday Dr	6P	60,000	33,351	0.56	B	3,349	36,700	0.61	C	0.05	No
Michael Faraday to Enrico Fermi Dr	6P	60,000	27,917	0.47	B	3,683	31,600	0.53	B	0.06	No
Enrico Fermi Dr to Airway Pl	4M	37,000	21,847	0.59	B	4,353	26,200	0.71	C	0.12	No
Airway Pl to Alta Rd	4M	37,000	21,847	0.59	B	4,353	26,200	0.71	C	0.12	No
SR-125											
North of Otay Mesa Road	4-Fwy	(b)	78,091	0.86	D	2,099	80,100	0.88	D	0.02	No
SR-905											
Britannia Blvd to La Media Rd	8-Fwy	(b)	138,922	0.79	C	17,078	156,000	0.89	D	0.10	No
La Media Rd to Siempre Viva Rd	8-Fwy	(b)	63,322	0.36	A	17,078	80,400	0.46	B	0.10	No
South of Siempre Viva Rd	4-Fwy	(b)	69,621	0.79	C	2,679	72,300	0.82	D	0.03	No
Sanyo Avenue											
Otay Mesa Rd to Airway Rd	4C	30,000	23,661	0.79	D	1,339	25,000	0.83	D	0.04	No
Enrico Fermi Drive											
Otay Mesa Rd to Airway Rd	4M(m)	47,000(a)	34,156	0.73	C	2,334	36,500	0.78	C	0.05	No
Alta Road											
Calzada De La Fuente to Lone Star Rd (Paseo De La Fuente)	4C	34,200	13,895	0.41	B	1,005	14,900	0.44	B	0.03	No
Lone Star Rd (Paseo De La Fuente) to Otay Mesa Rd	4M	37,000	10,326	0.28	A	1,674	12,000	0.32	A	0.04	No
South of Otay Mesa Rd	4M	37,000	8,726	0.24	A	1,674	10,400	0.28	A	0.04	No
North of Airway Rd	4M	37,000	7,791	0.21	A	2,009	9,800	0.26	A	0.05	No
Airway Rd to Siempre Viva Rd	4M	37,000	4,154	0.11	A	2,846	7,000	0.19	A	0.08	No

ADT= Average Daily Traffic; LOS= Level of Service; V/C = Volume-to LOS E Capacity Ratio; 8-Fwy = 8-Lane Freeway 4-Fwy = 4-Lane Freeway; 6P = 6-Lane Prime Arterial; 4M(m)= 4-Lane Modified Major Arterial; 4M = 4-Lane Major Arterial; 4C = 4-Lane Collector; (a) Additional lanes may be provided to accommodate turning movements and freeway access; hence the roadway capacity was assumed to be 47,000 ADT at LOS E (half way between a 4M & 6P). (b) Capacity based on Caltrans District 11 & HCM procedures, See Appendix N of the Project traffic study for LOS calculations.
Source: Darnell & Associates, Inc, (September 20, 2010).

Table 2.7-33 SUMMARY OF ON-SITE AND PROJECT ACCESS ROADWAY SEGMENT IMPROVEMENTS (CUMULATIVE CONDITIONS)

Roadway Segment	Project Buildout Conditions	Cumulative (2020) w/ SR-905 1A&1B (b)	Ultimate Classification Per EOMSP
Airway Road			
Alta Rd to 'B' Street	4C	LC	4M
'B' Street to Siempre Viva Rd	4C	N/A	4M
Siempre Viva Rd to 'A' Street	4L-I/C	N/A	Non CE/4L-I/C
Siempre Viva Road			
Alta Rd to 'B' Street	4C	LC	4M
'B' Street to 'C" Street	TC	N/A	4M
'C' Street to Airway Rd	LC	N/A	4M
Airway Rd to Project Boundary	LC	N/A	4M
'A' Street			
Alta Rd to 'B' Street	4L- I/C	N/A	Non CE/4L- I/C
'B' Street to 'C" Street	2L- I/C	N/A	Non CE/2L- I/C
'C' Street to Airway Rd	2L- I/C	N/A	Non CE/2L- I/C
Alta Road			
Airway Rd to Siempre Viva Rd	LC	LC	4M
Siempre Viva Rd to 'A' Street	2L- I/C (a)	N/A	2L- I/C (a)
'A' Street to Project Boundary	2L- I/C	N/A	2L- I/C
'B' Street			
Airway Rd to Siempre Viva Rd	2L- I/C	2L- I/C	Non CE/2L- I/C
Siempre Viva Rd to 'A' Street	2L- I/C	N/A	Non CE/2L- I/C
'C' Street			
Siempre Viva Rd to 'A' Street	2L- I/C	N/A	Non CE/2L- I/C
South of 'A' Street	2L- I/C*	N/A	Non CE2L- I/C*

EOMSP = East Otay Mesa Specific Plan; 5C = 5-Lane Collector Road 4M = 4-lane Major Road; 4C = 4-Lane Collector Road; TC = Town Collector; LC = Light Collector; 2L- I/C = 2-Lane Industrial Commercial Collector; 2L- I/C* - 2-Lane Industrial Commercial Collector Cul-De Sac; Non CE = Non Circulation Element Road; N/A = Not Applicable because this roadway segment will not be constructed until a later phase of development. (a) Capacity assumed to be equivalent to that of a Light Collector Road, 16, 200 ADT at LOS E. (b) Cumulative (2020) analysis assumed Otay Business Park was developed at 13%.
Source: Darnell & Associates, Inc, (September 20, 2010).

Table 2.7-34 INTERNAL ROADWAY SEGMENT DAILY LOS SUMMARY (CUMULATIVE CONDITIONS)

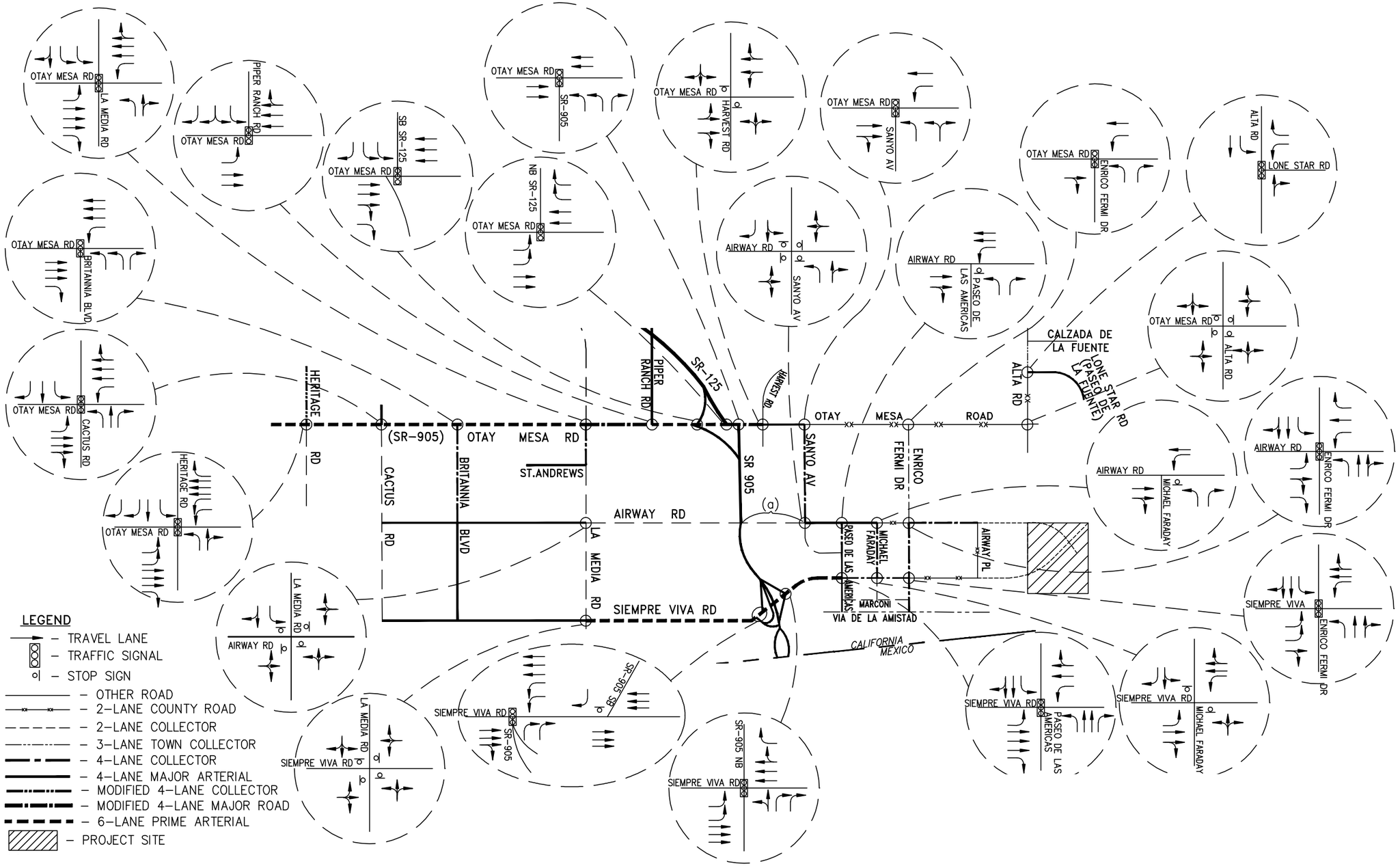
Roadway Segment	Recommended Classification	Capacity (LOS E)	ADT	LOS
Cumulative (2020) w/SR-905 Phases 1A & 1B (c)				
Airway Road				
Alta Rd to 'B' Street	Light Collector	16,200	1,030	A
Siempre Viva Road				
Alta Rd to 'B' Street	Light Collector	16,200	2,750	B
Alta Road				
Airway Rd to Siempre Viva Rd	Light Collector	16,200	1,090	A
'B' Street [(a)]				
Airway Rd to Siempre Viva Rd	2-Lane Industrial/Commercial Collector	4,500	2,750	<C
2030 + Project Build Out (Phases 1-4)				
Airway Road				
Alta Rd to 'B' Street	4-Lane Major	37,000	11,000	A
'B' Street to Siempre Viva Rd	4-Lane Major	37,000	11,000	A
Siempre Viva Rd to 'A' Street	4-Lane Industrial/Commercial Collector	13,500	13,500	<C
Siempre Viva Road				
Alta Rd to 'B' Street	4-Lane Major	37,000	21,600	B
'B' Street to 'C' Street	4-Lane Major	37,000	21,600	B
'C' Street to Airway Rd	4-Lane Major	37,000	21,600	B
Airway Rd to Project Boundary	4-Lane Major	37,000	28,000	C
'A' Street [(a)]				
Alta Rd to 'B' Street	4-Lane Industrial/Commercial Collector	13,500	3,000	<C
'B' Street to 'C' Street	2-Lane Industrial/Commercial Collector	4,500	3,000	<C
'C' Street to Airway Rd	2-Lane Industrial/Commercial Collector	4,500	4,000	<C
Alta Road				
Airway Rd to Siempre Viva Rd	4-Lane Major	37,000	10,000	A
Siempre Viva Rd to 'A' Street[(a)]	2-Lane Industrial/Commercial Collector(b)	16,200	5,700	C
'A' Street to Project Boundary [(a)]	2-Lane Industrial/Commercial Collector	4,500	4,300	<C
'B' Street [(a)]				
Airway Rd to Siempre Viva Rd	2-Lane Industrial/Commercial Collector	4,500	3,000	<C
Siempre Viva Rd to 'A' Street	2-Lane Industrial/Commercial Collector	4,500	4,000	<C
'C' Street[(a)]				
Siempre Viva Rd to 'A' Street	2-Lane Industrial/Commercial Collector	4,500	3,000	<C
South of 'A' Street	Cul-De Sac	1,000	**2,000**	**>C**

ADT= Average Daily Traffic; LOS= Level of Service; <C Operates at better than LOS C; >C Operates over recommended capacity for LOS C
(a) Levels of Service are typically not applied to industrial/commercial collector roads, The capacity shown here is the recommended capacity to maintain LOS C
(b) Capacity assumed to be equivalent to that of a Light Collector Road, 16, 200 ADT at LOS E
(c) Cumulative (2020) analysis assumed Otay Business Park was developed at 13%
Source: Darnell & Associates, Inc, (September 20, 2010).

Table 2.7-35 INTERNAL INTERSECTION LOS SUMMARY (CUMULATIVE CONDITIONS)

Intersection	Traffic Control	Critical Move	AM Peak		PM Peak	
			Delay	LOS	Delay	LOS
Cumulative (2020) w/SR-905 Phases 1A & 1B(a)						
Airway Rd (E-W) @ Alta Rd (N-S)	OWSC	NB	12.8	B	11.1	B
Siempre Viva Rd (E-W) @ Alta Rd (N-S)	OWSC	SB	17.2	C	12.7	B

Delay is measured in seconds/vehicle; LOS=Level of Service; sig=signalized; AWSC = All-Way Stop-Controlled; TWSC = Two-Way Stop-Controlled; OWSC=One Way Stop Controlled; sig – Signalized; Int = Intersection; NB = Northbound Approach; SB = Southbound Approach; EB = Eastbound Approach; WB = Westbound Approach; NBL = Northbound Left; SBL = Southbound Left NBT-R = Shared Northbound Through-Right; SBT-R = Shared Southbound Through-Right; NBL-R = Shared Northbound Left Right; E-W = East-West Roadway; N-S = North-South Roadway
(a) Cumulative (2020) analysis assumed Otay Business Park was developed at 13%.
Source: Darnell & Associates, Inc, (September 20, 2010).

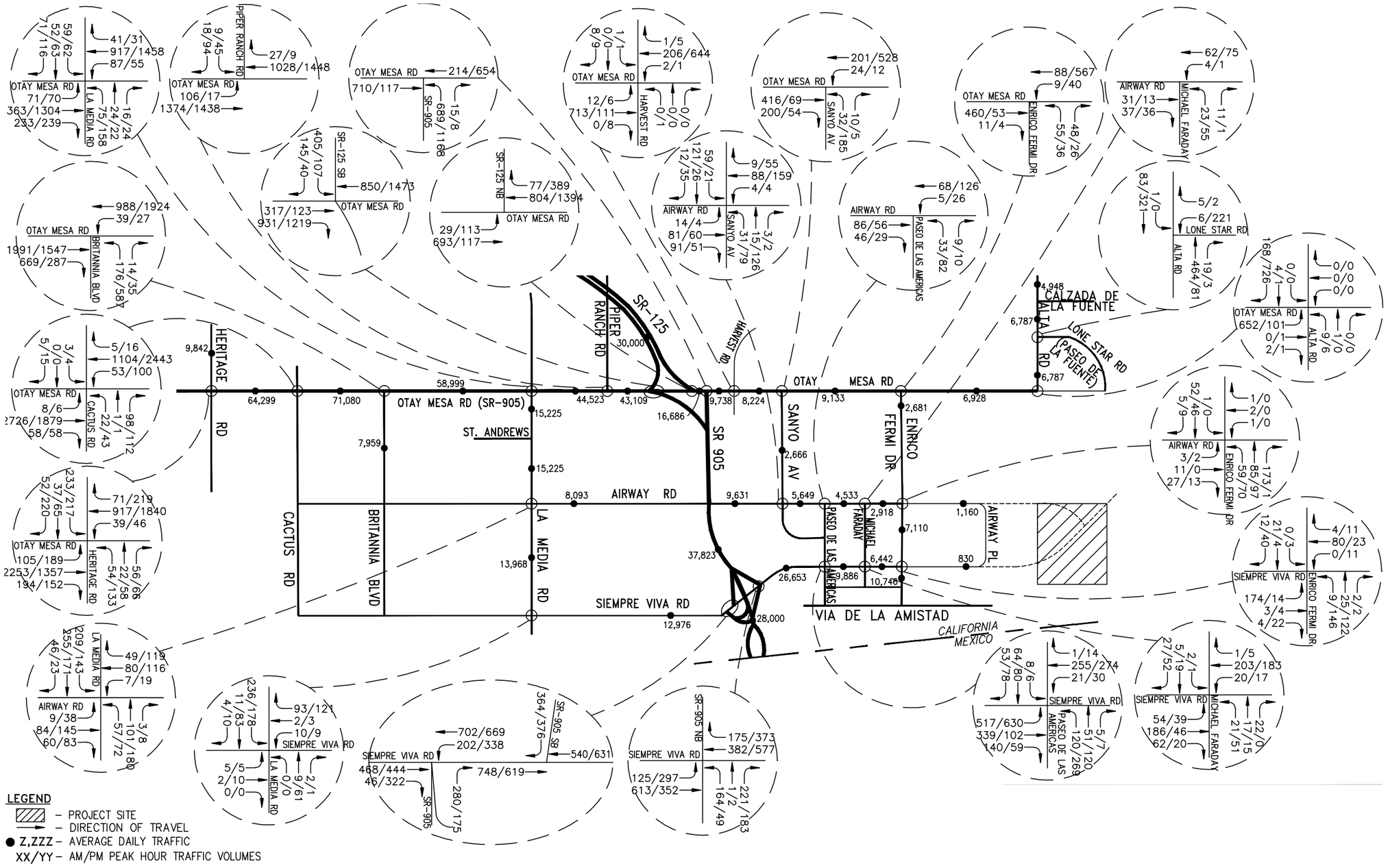


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-1

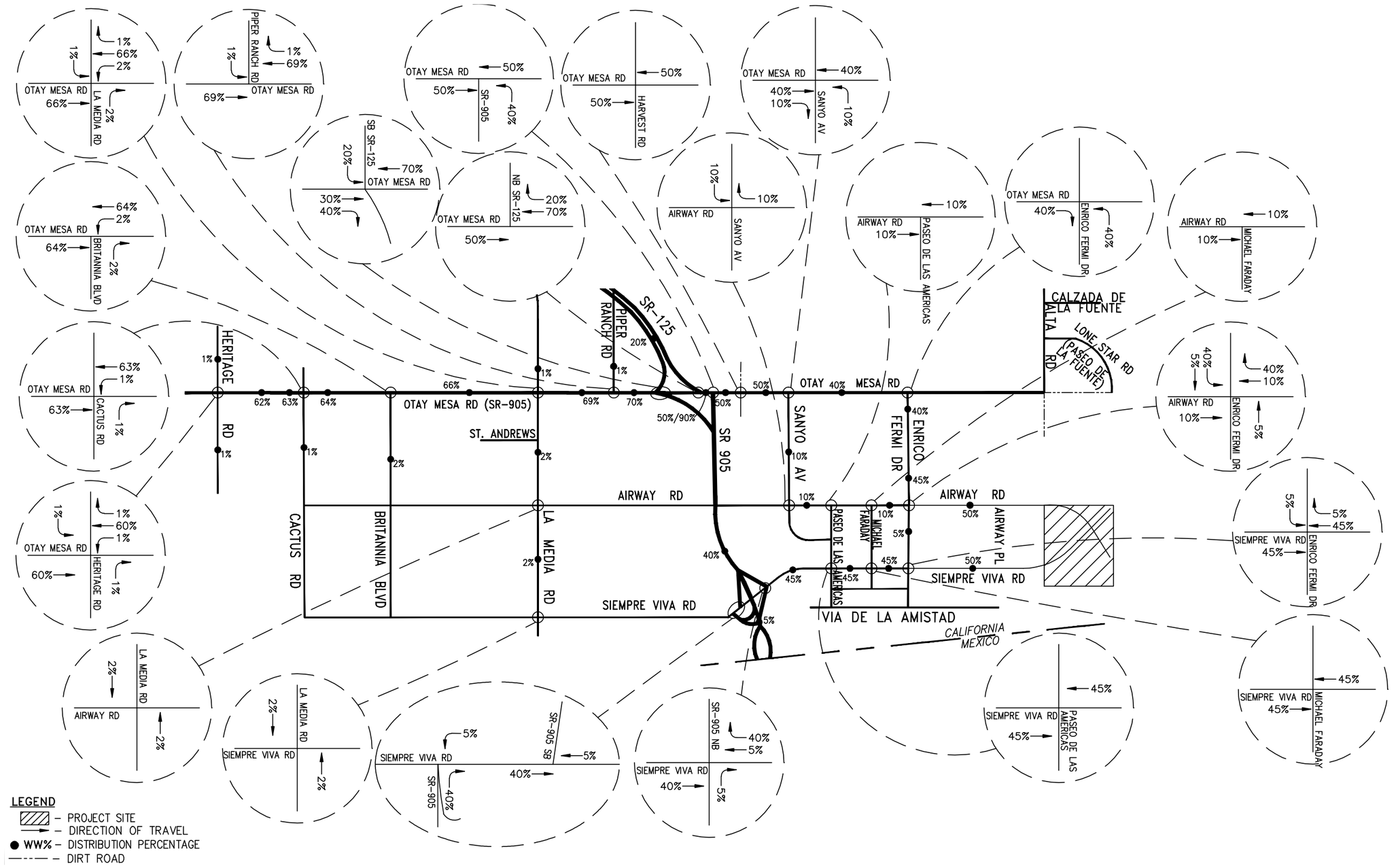
Existing Roadway Conditions



Source: Darnell & Associates, Inc. (9-20-10)

not to scale

FIGURE 2.7-2
Existing Daily Traffic Volumes

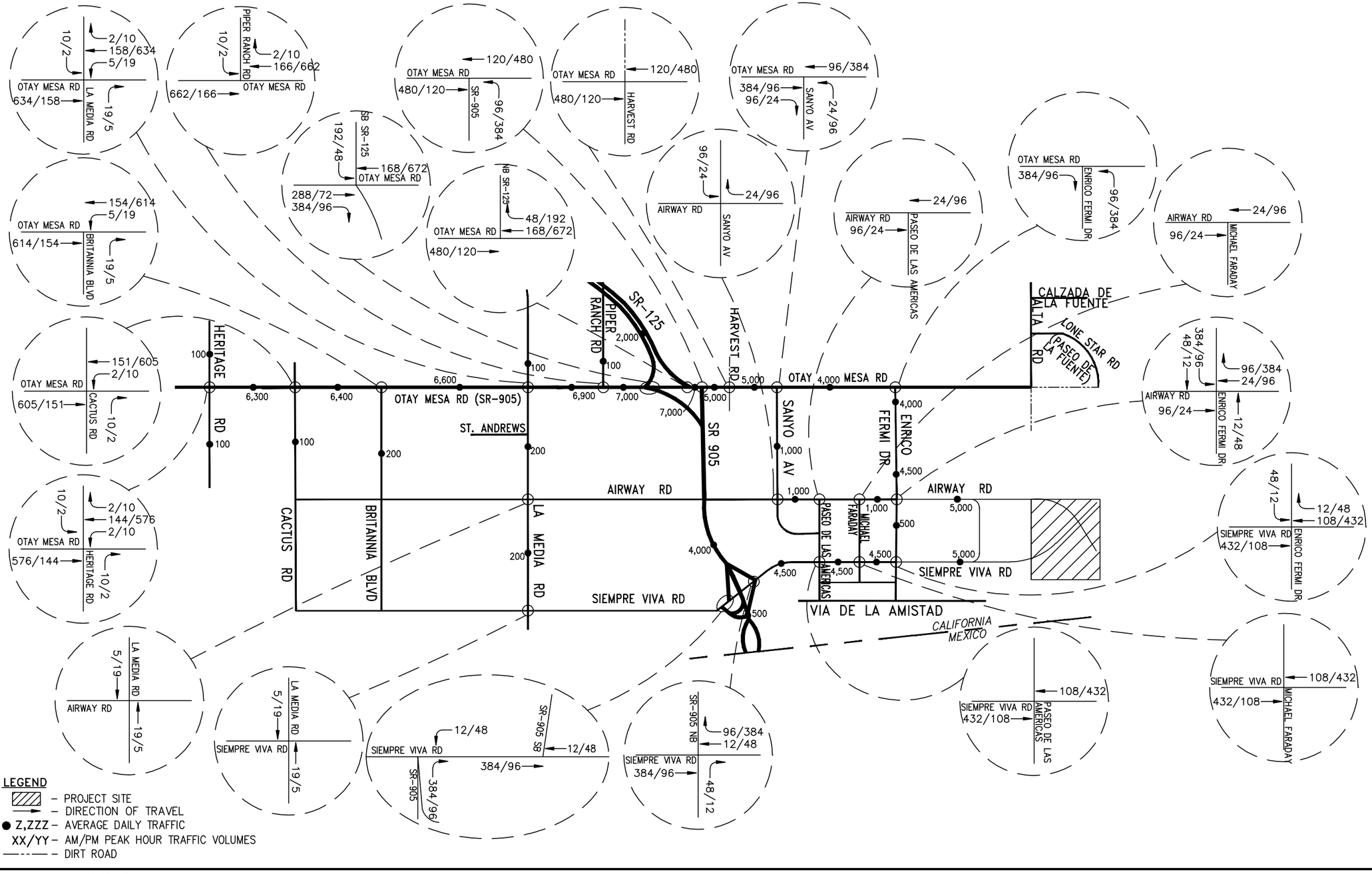


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-3

Traffic Distribution for Existing Conditions

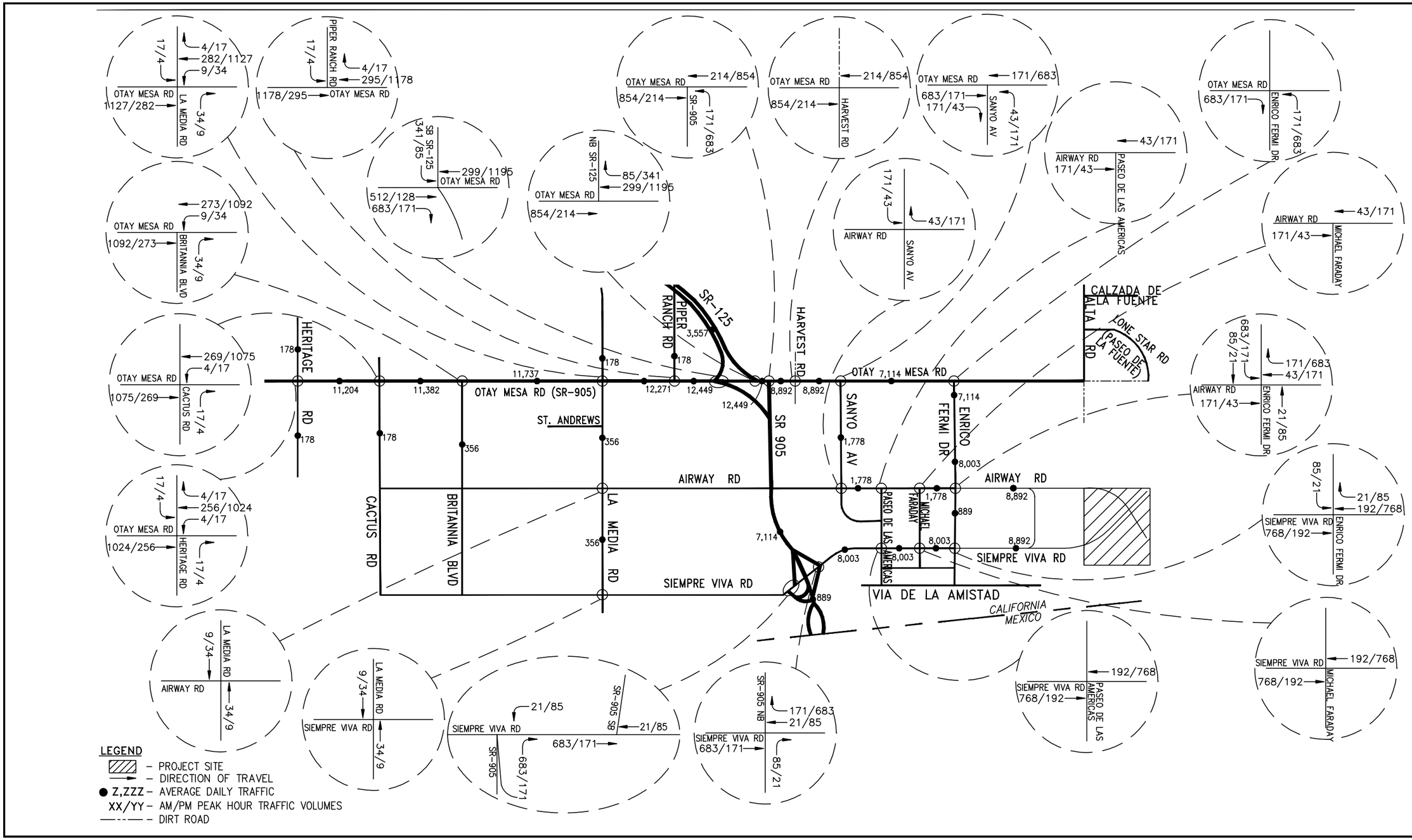


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-4

Phase 1 Project-Related Traffic Volumes

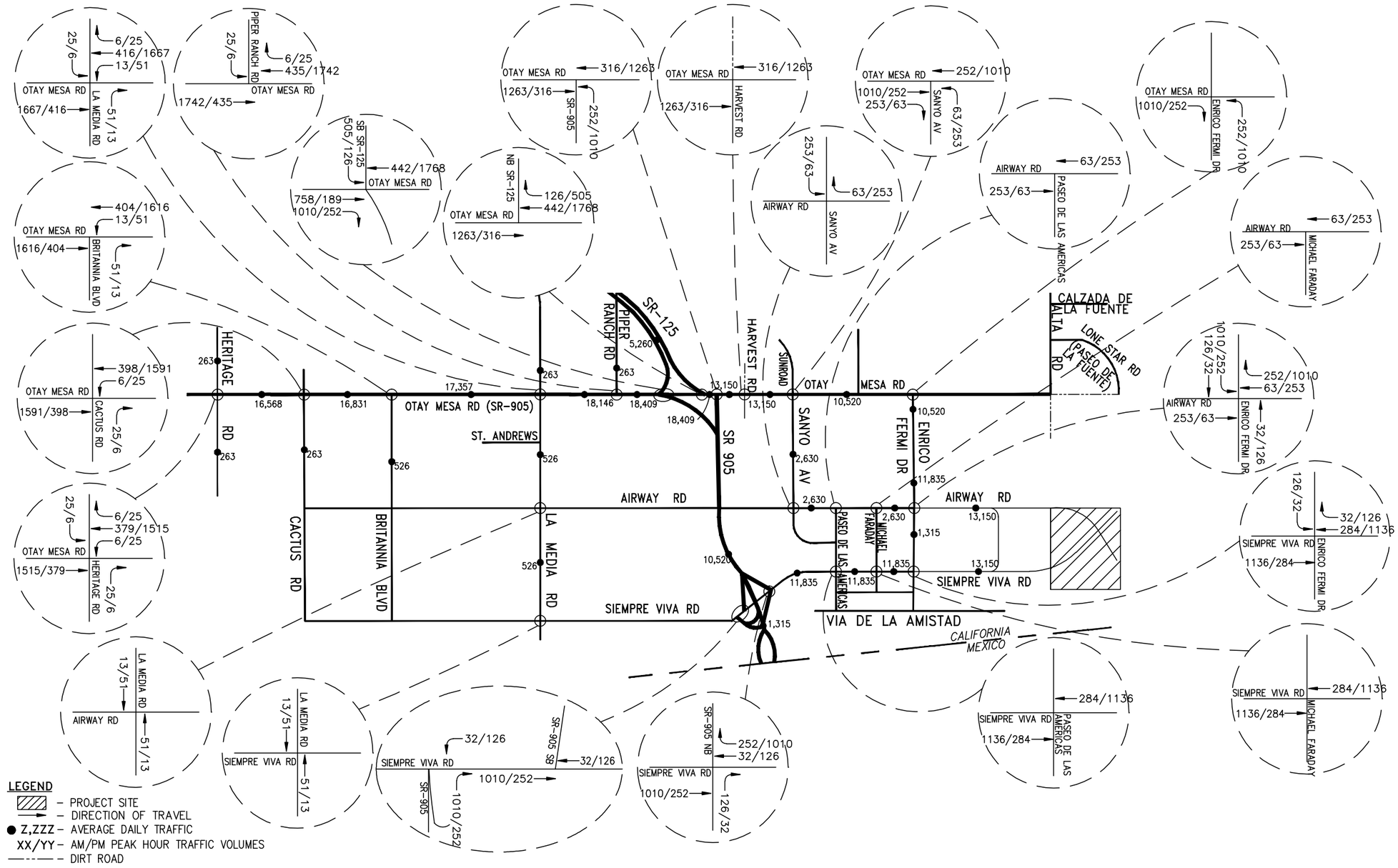


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-5

Phases 1 and 2 Project-Related Traffic Volumes

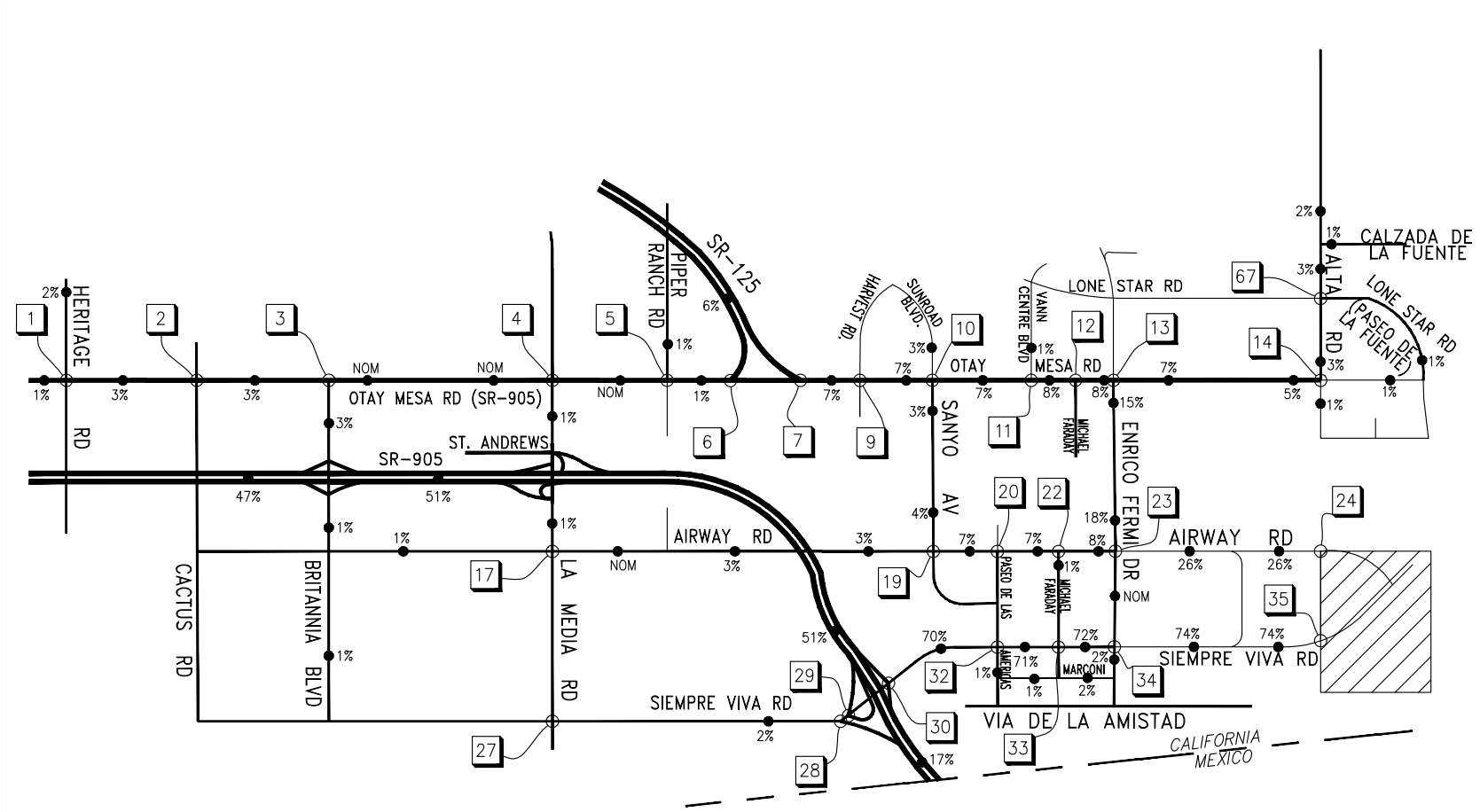


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-6

Phases 1 Through 3 Project-Related Traffic Volumes

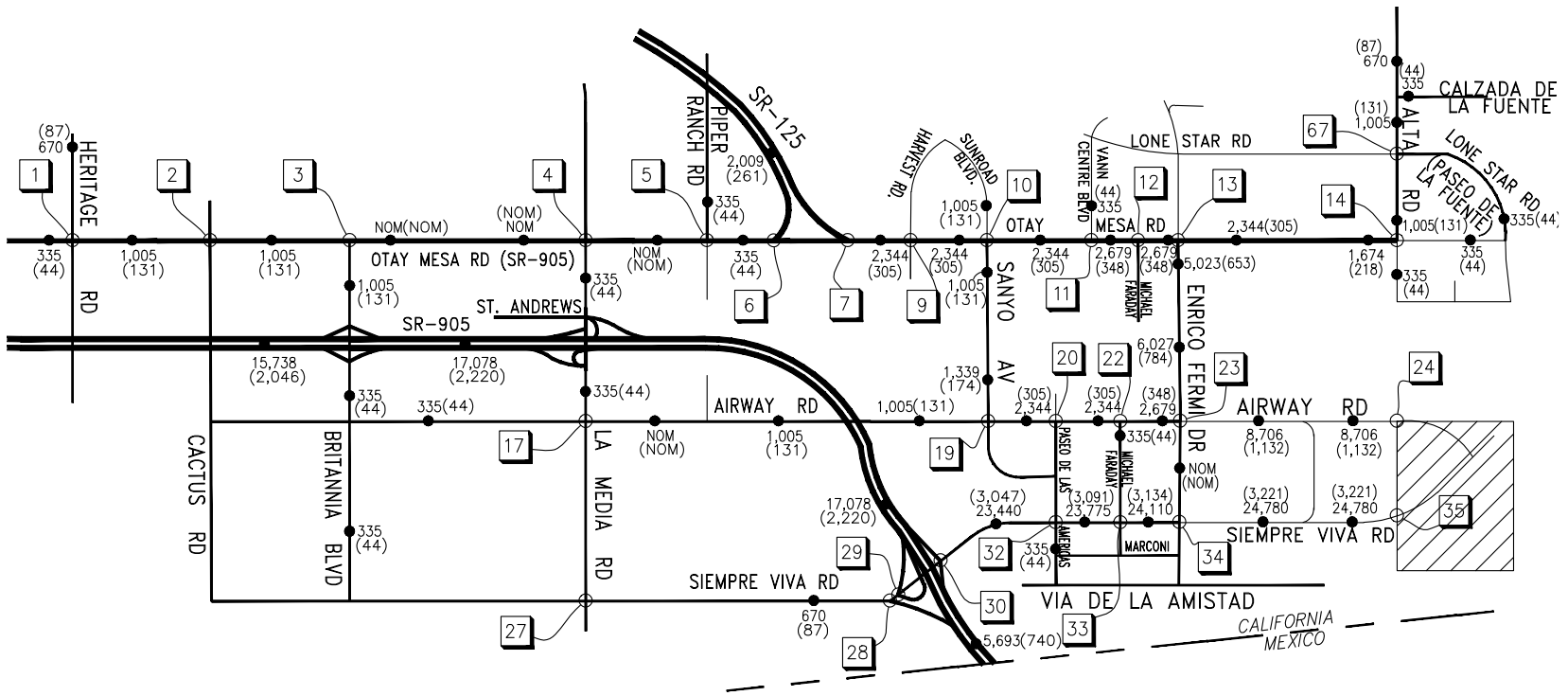


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-7

Traffic Distribution for Cumulative (2020) with SR-905 Conditions

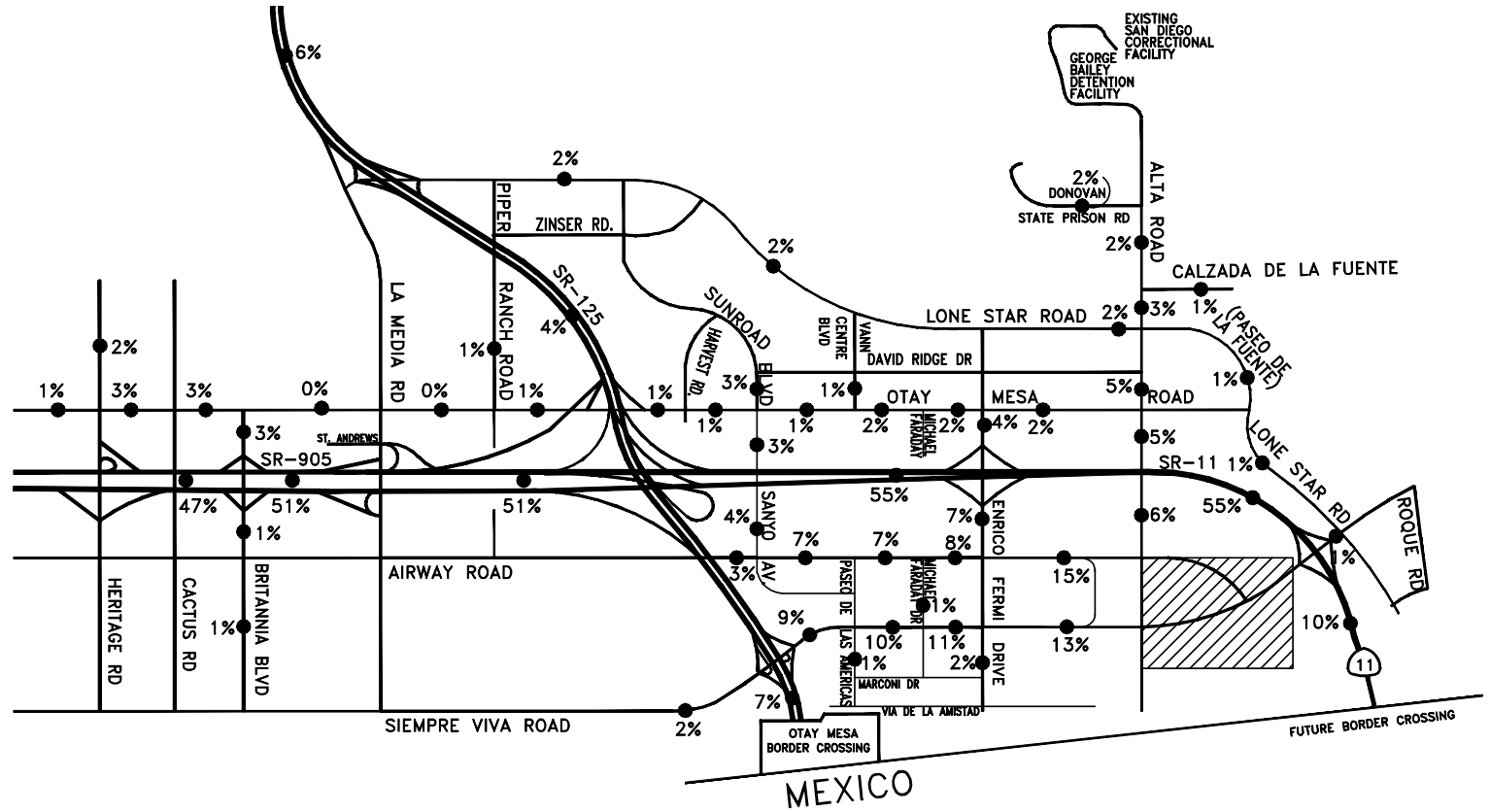


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-8

Project-Related Traffic Volumes for Cumulative (2020) with SR-905

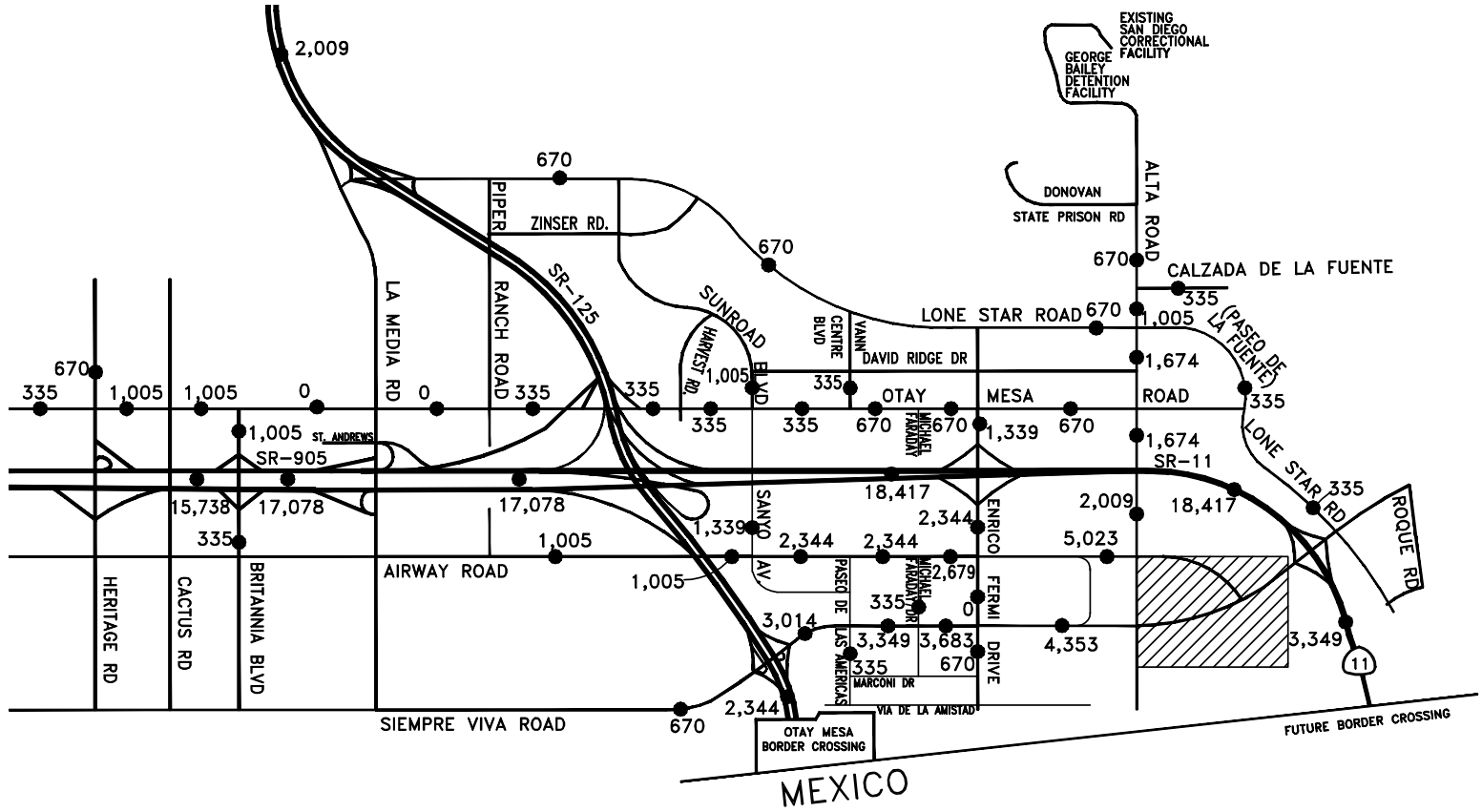


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-9

Traffic Distribution for Buildout Year 2030 Conditions



LEGEND

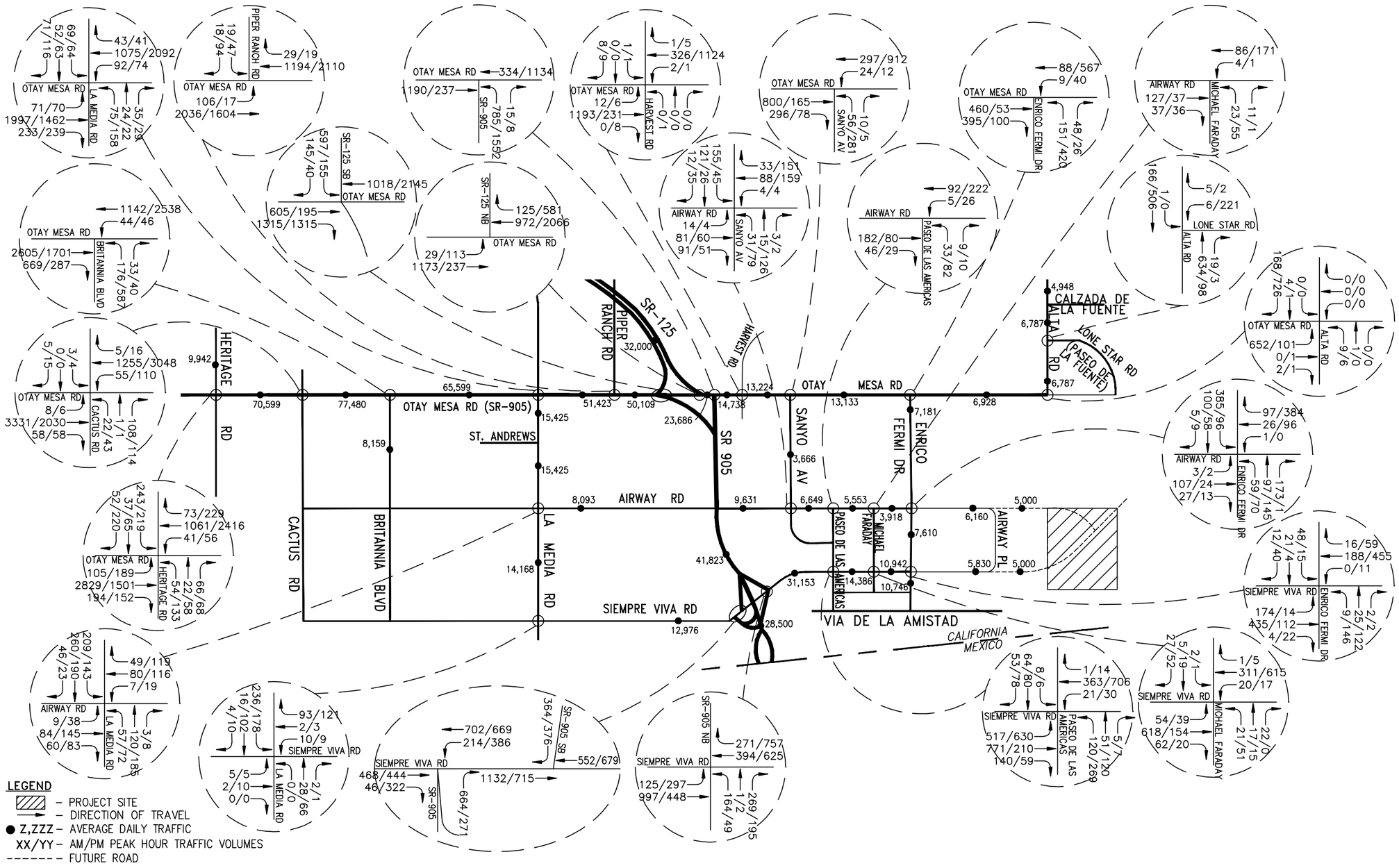
- PROJECT SITE
- XX% – DISTRIBUTION PERCENTAGE
- Z,ZZZ – AVERAGE DAILY TRAFFIC
- DIRECTION OF TRAVEL

Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-10

Project-Related Traffic Volumes for Buildout Year 2030 Conditions

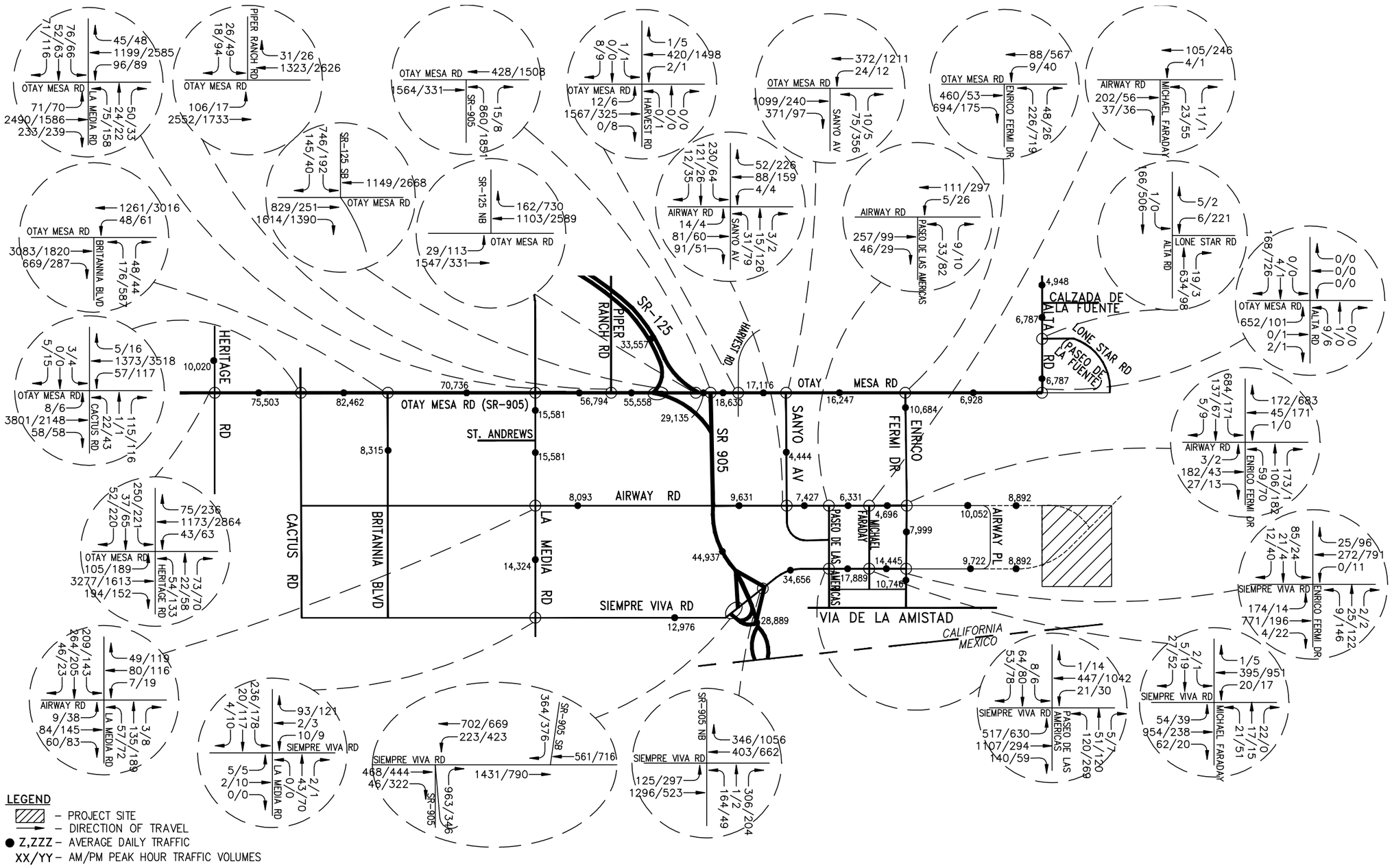


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-11

Existing Plus Project Phase 1 Street Segment Traffic Volumes

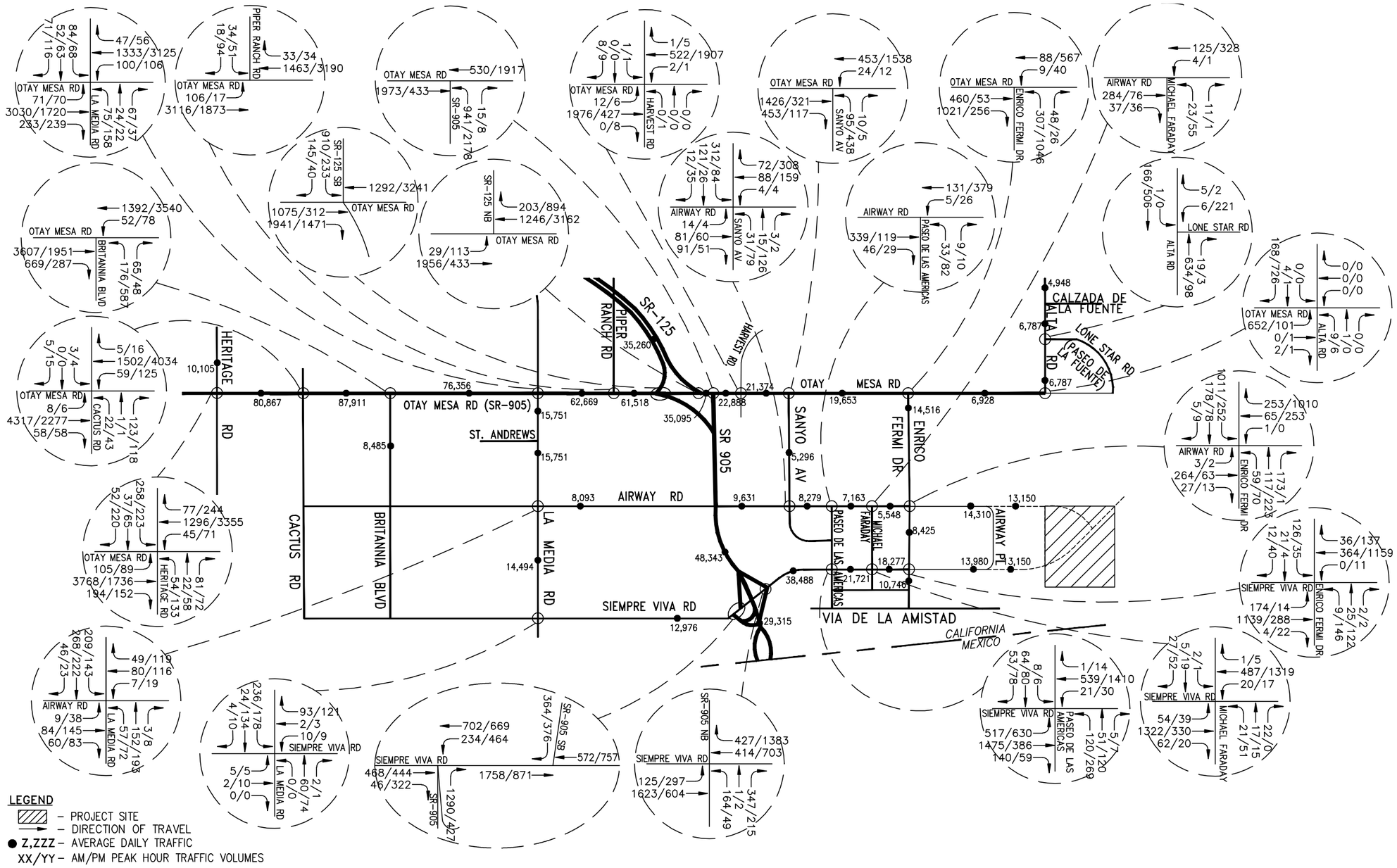


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-12

Existing Plus Project Phases 1 and 2 Street Segment Traffic Volumes

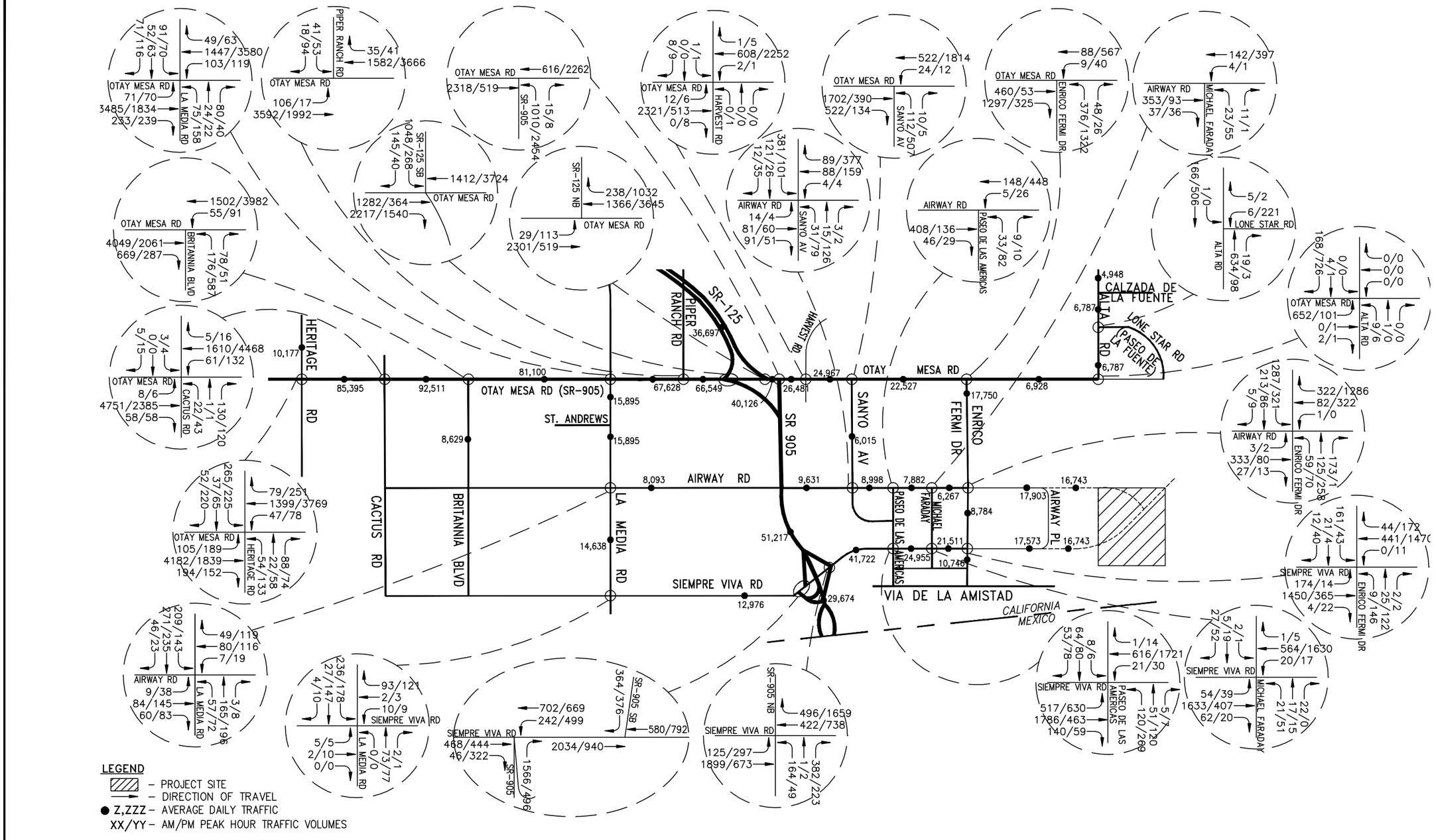


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-13

Existing Plus Project Phases 1 Through 3 Street Segment Traffic Volumes

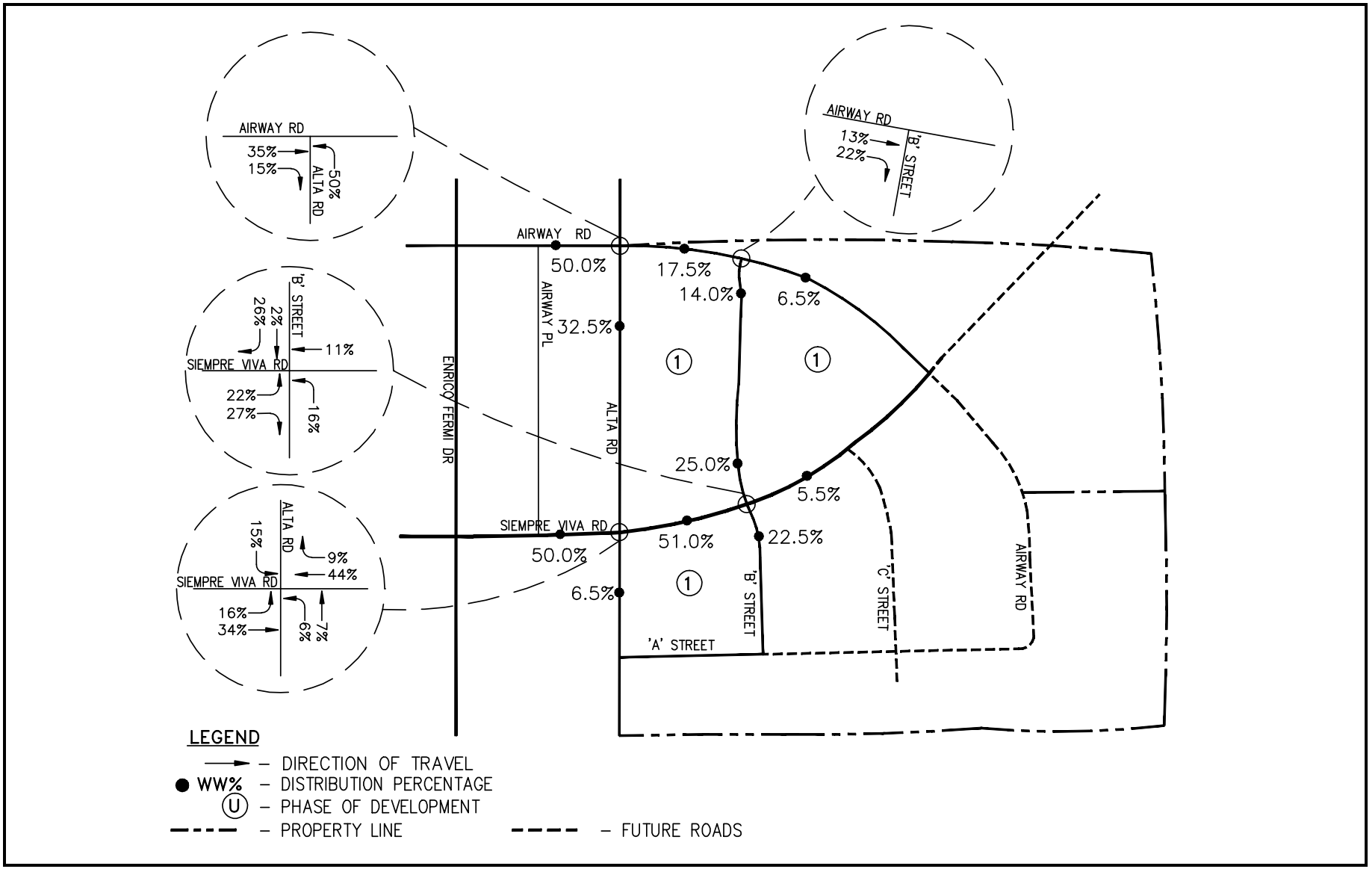


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-14

Existing Plus Project Buildout (Phases 1 through 4) Street Segment Traffic Volumes

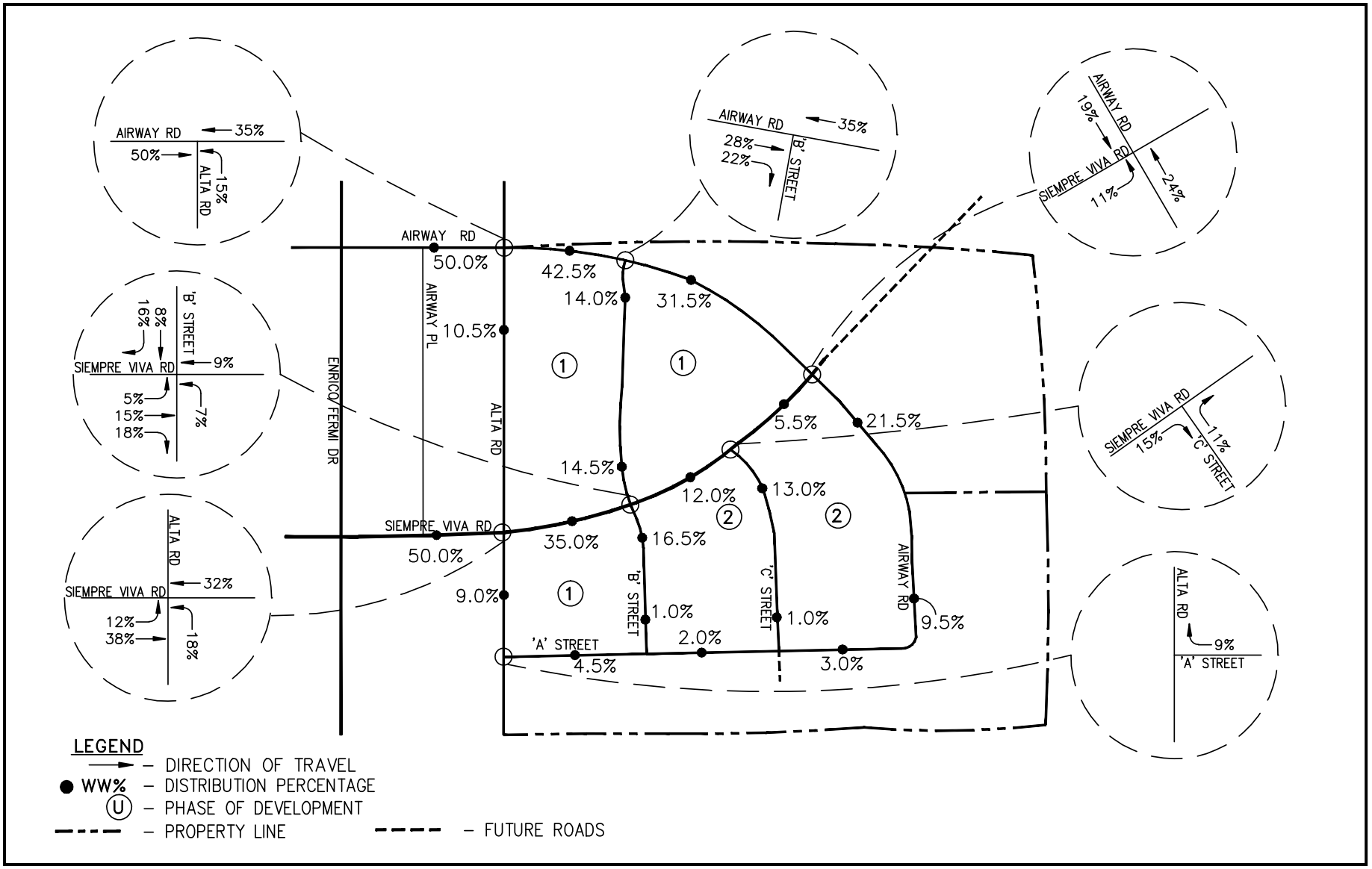


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-15

Internal Trip Distribution Percentages for Project Phase 1 for Existing Conditions

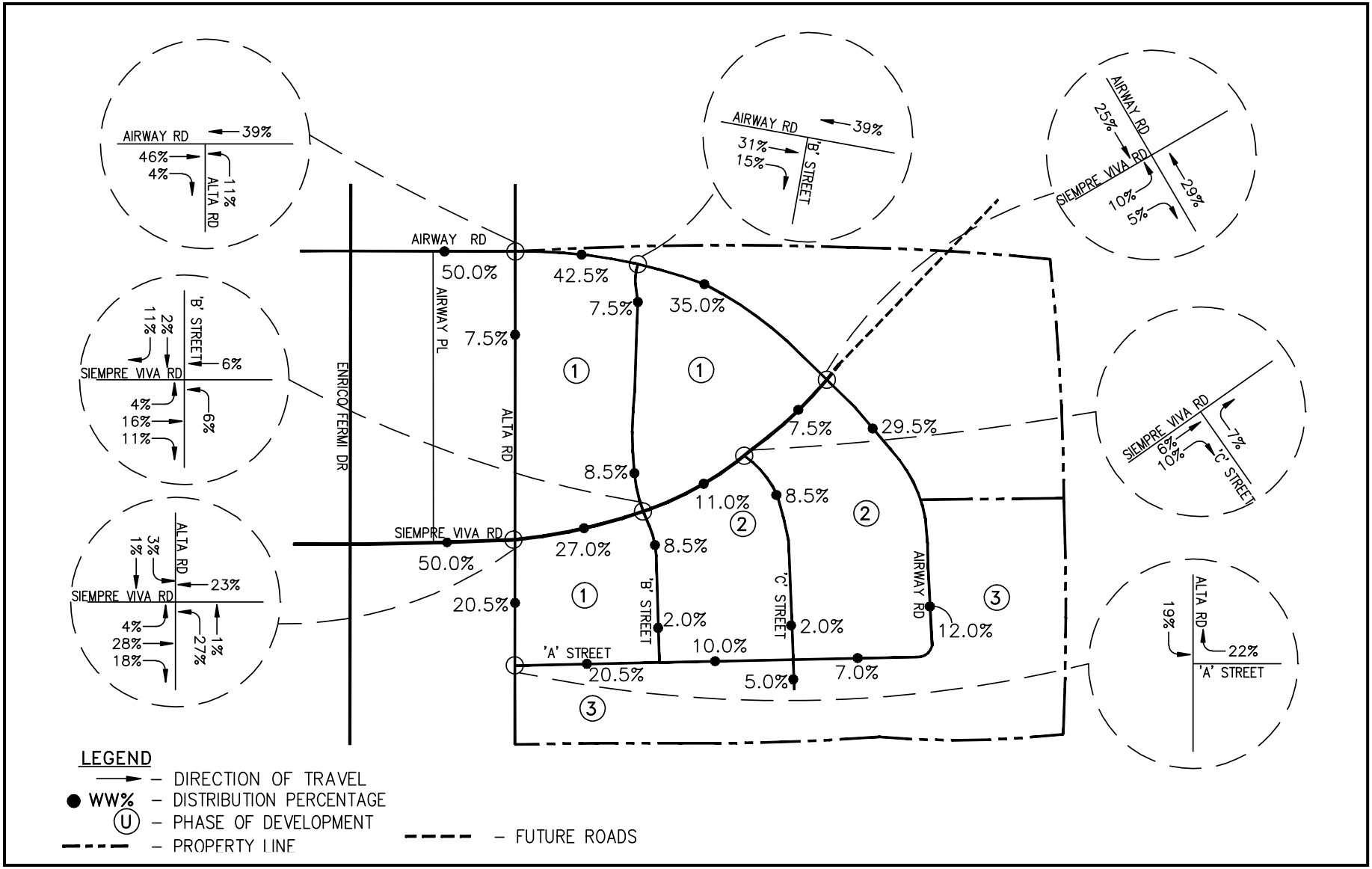


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-16

Internal Trip Distribution Percentages for Project Phases 1 and 2 for Existing Conditions

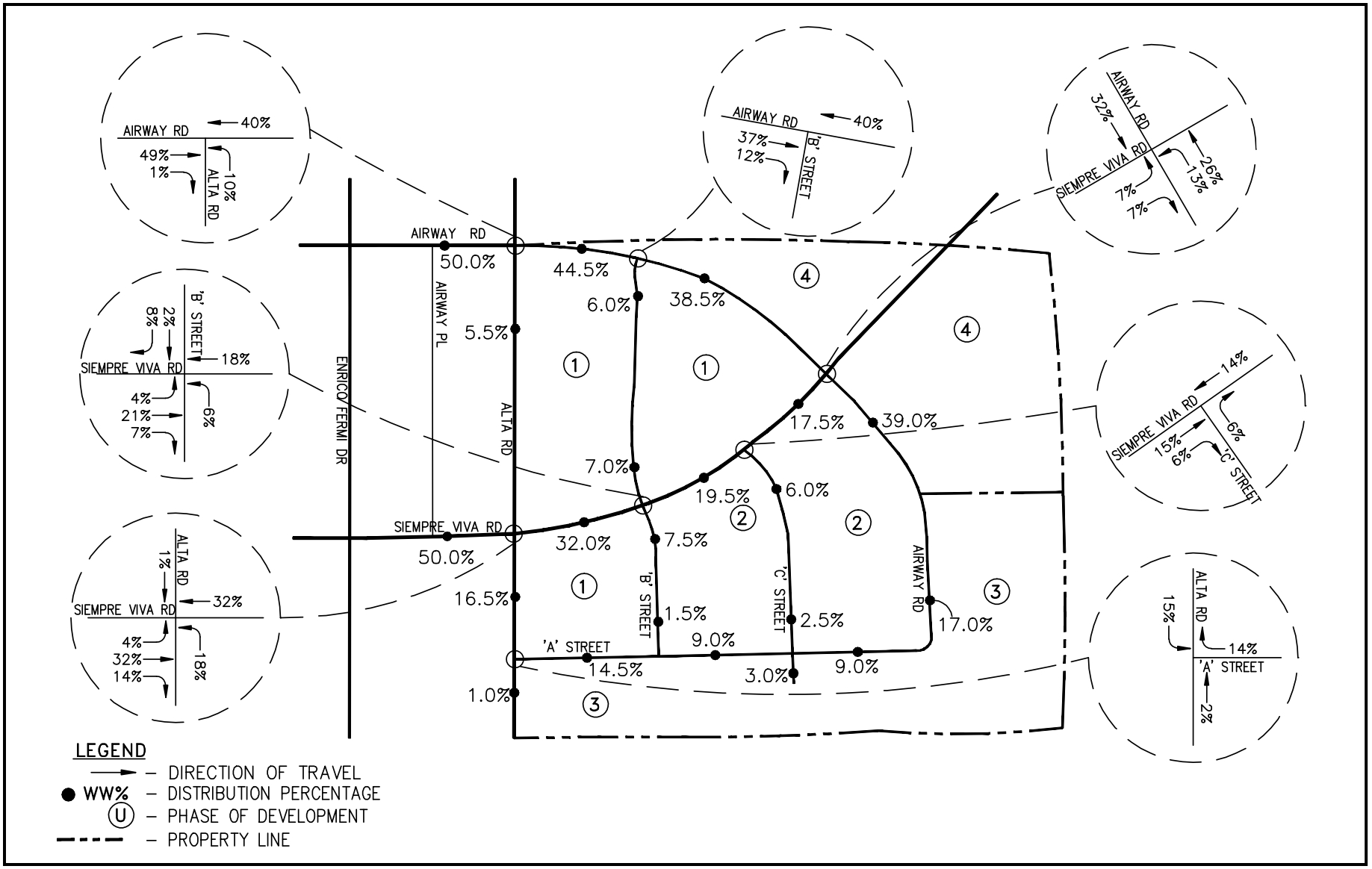


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-17

Internal Trip Distribution Percentages for Project Phases 1 through 3 for Existing Conditions

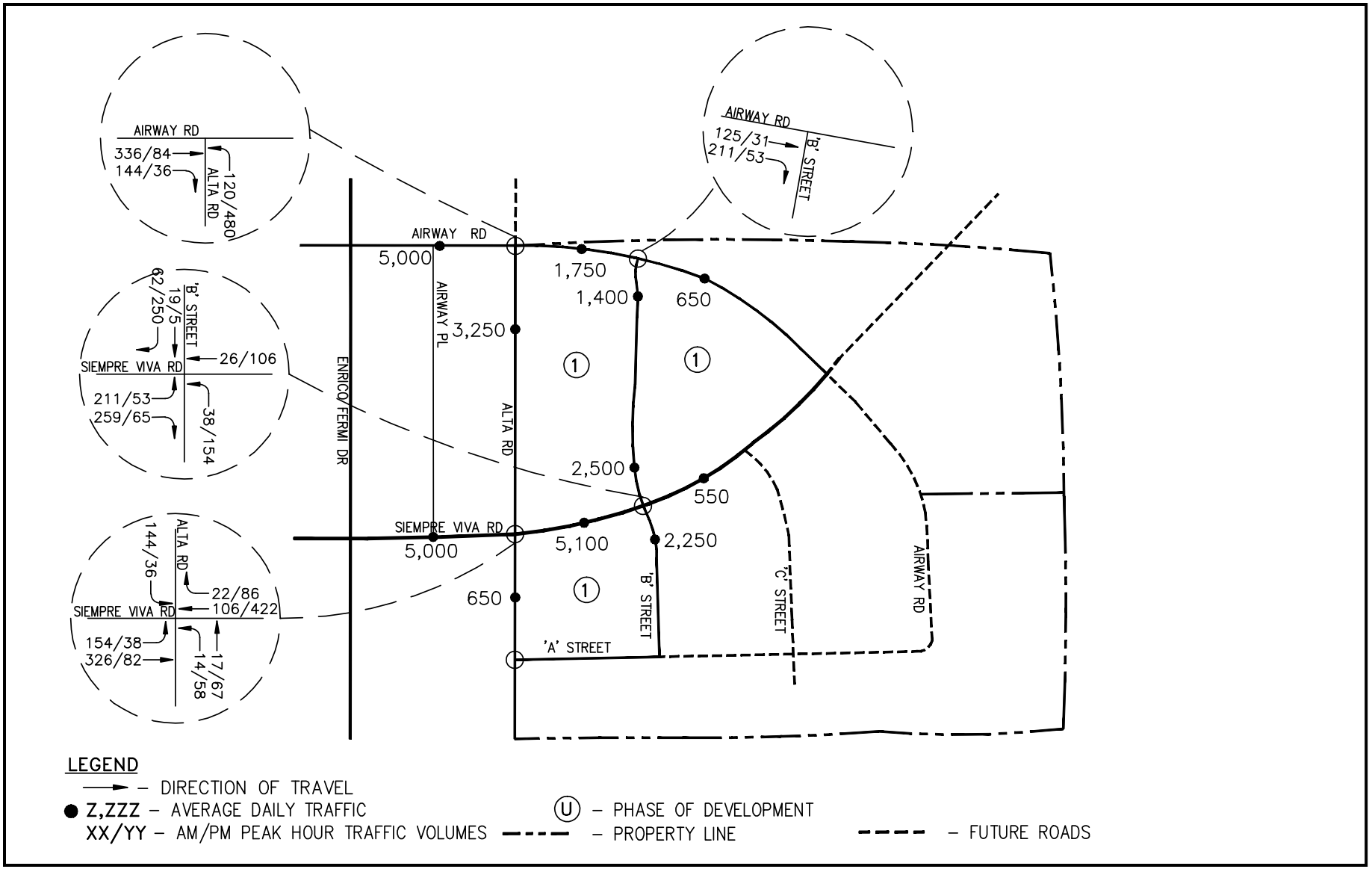


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-18

Internal Trip Distribution Percentages for Project Phases 1 through 4 for Existing Conditions

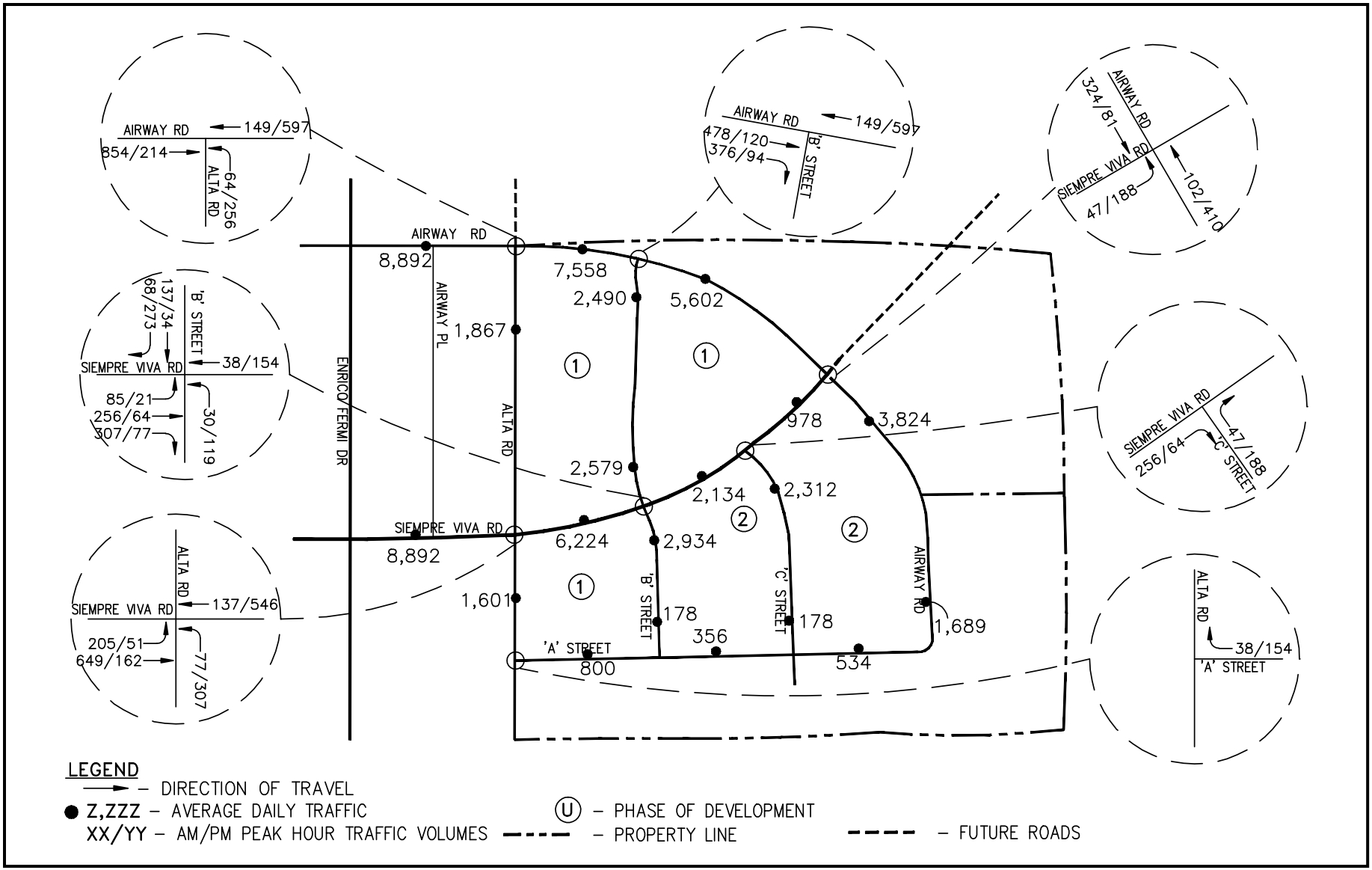


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-19

Internal Project Phase 1 Related Traffic Volumes for Existing Conditions

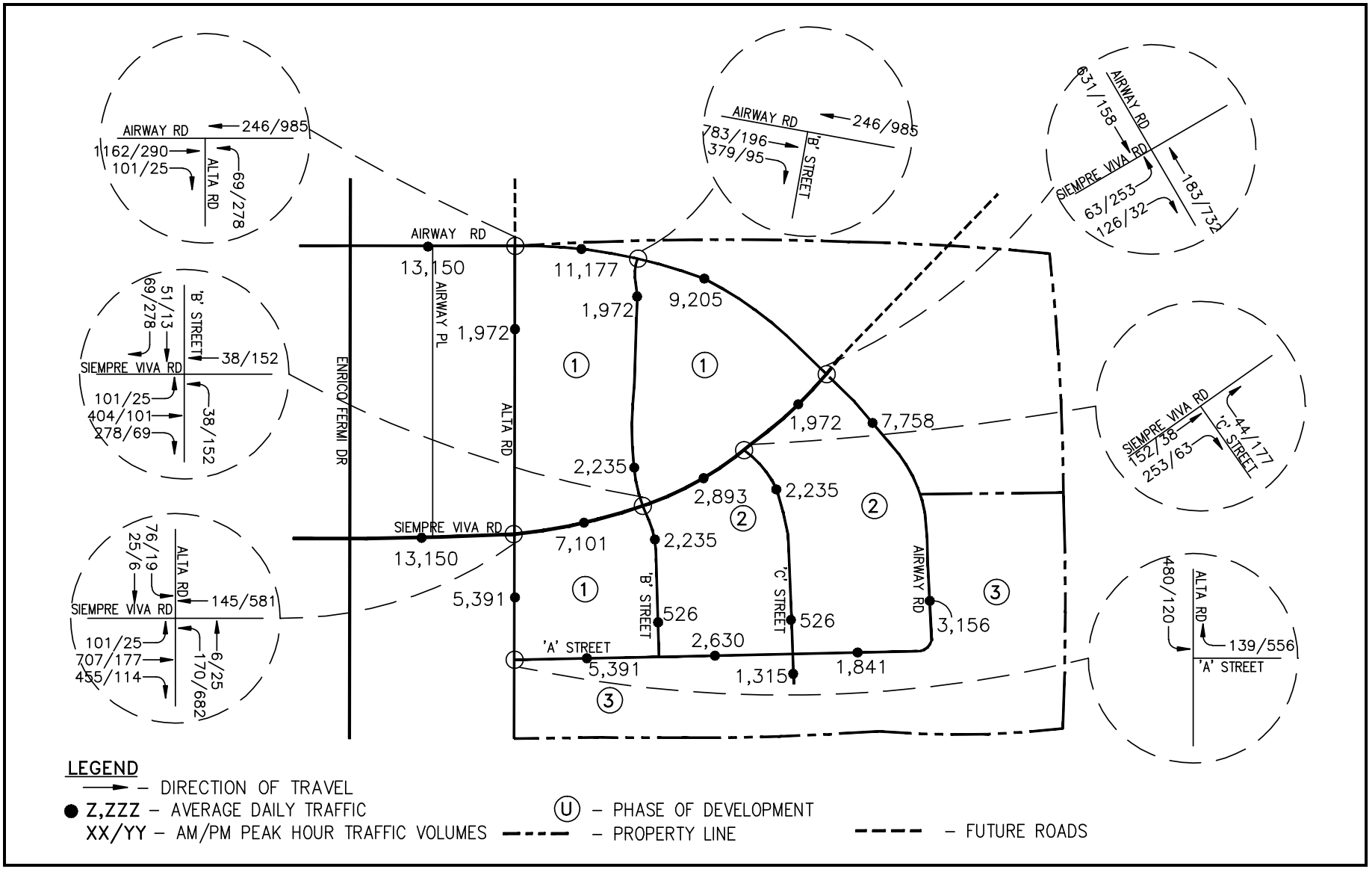


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-20

Internal Project Phases 1 and 2 Related Traffic Volumes for Existing Conditions

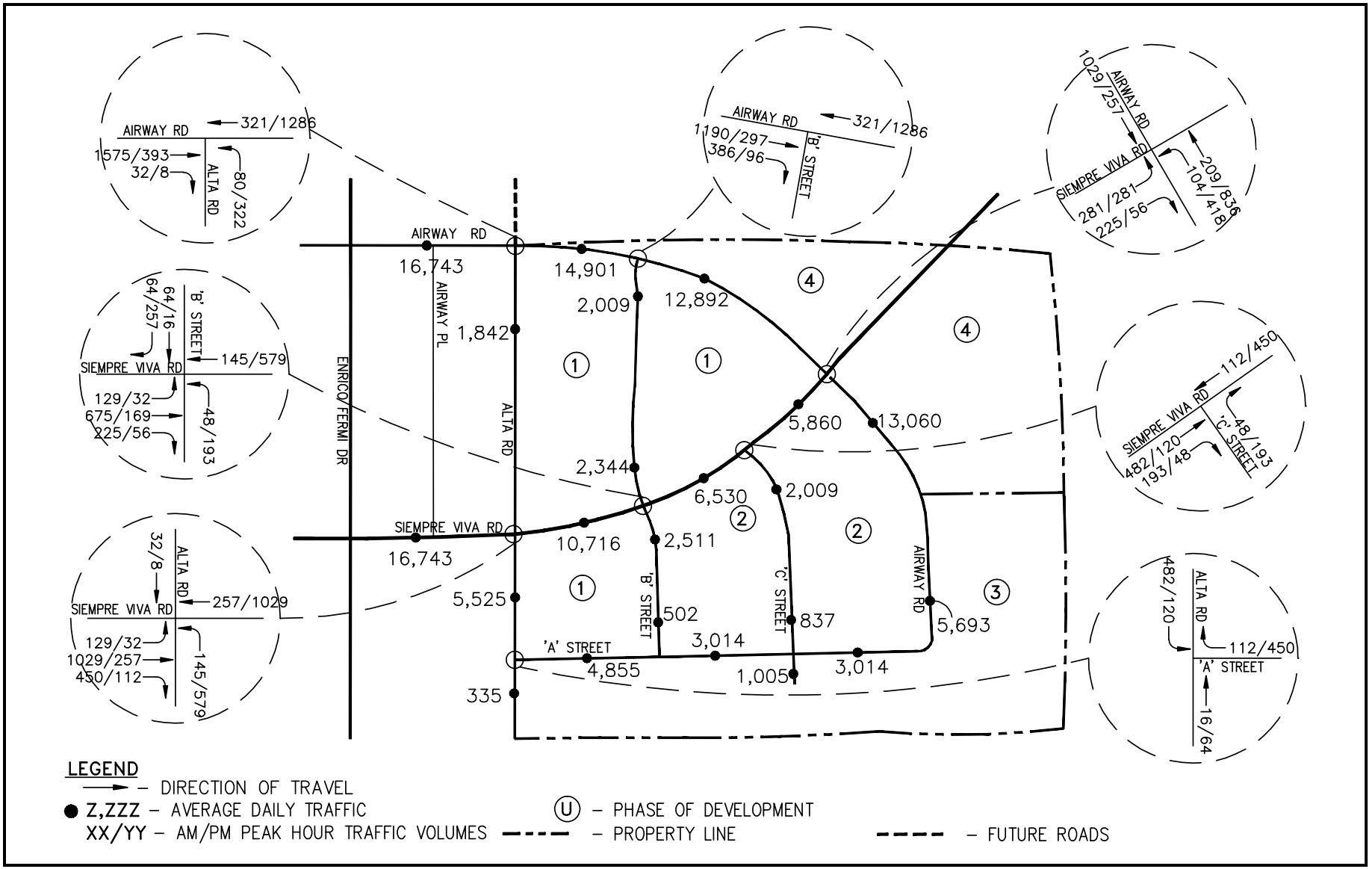


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-21

Internal Project Phases 1 through 3 Related Traffic Volumes for Existing Conditions

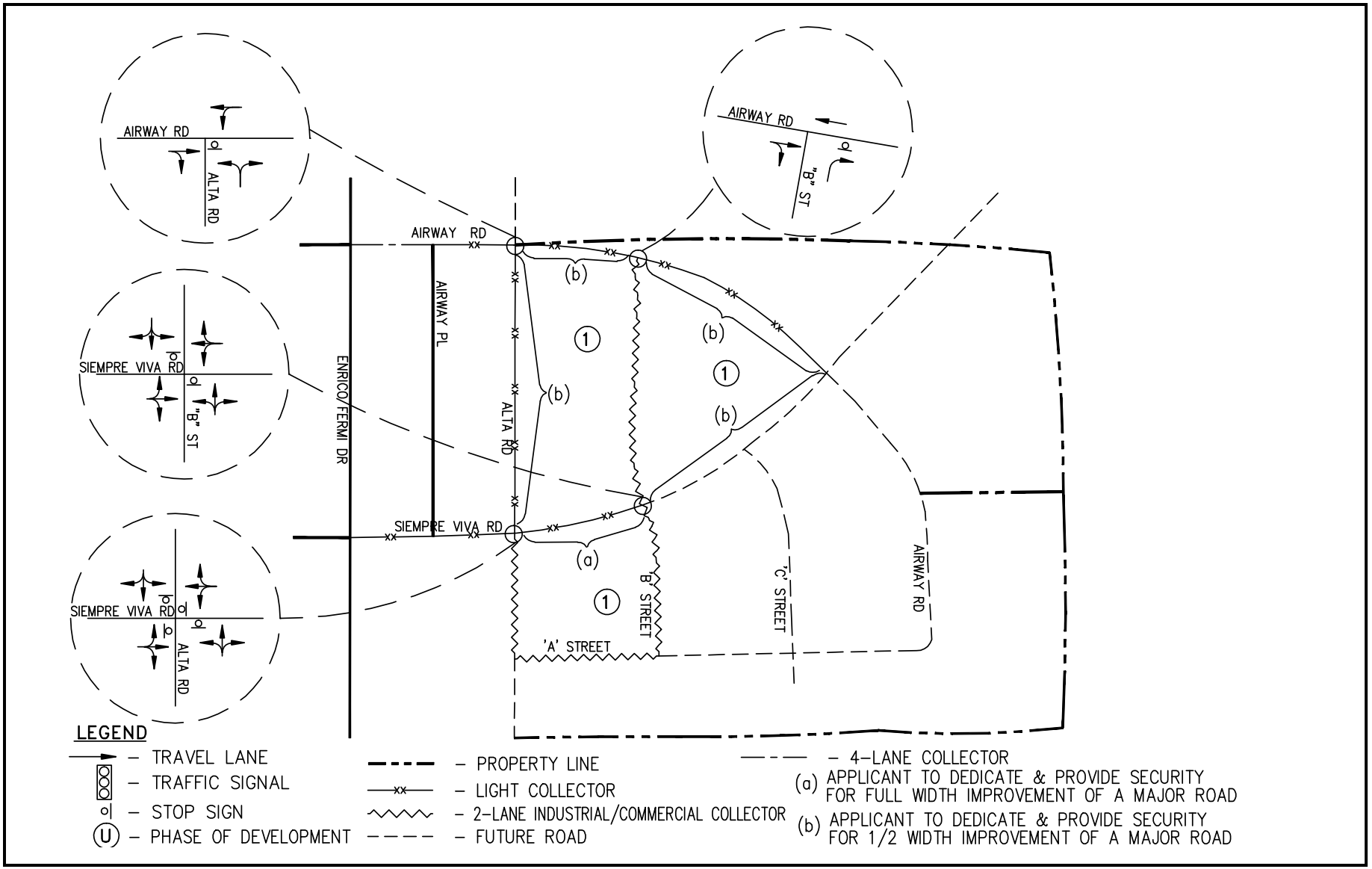


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-22

Internal Project Phases 1 through 4 Related Traffic Volumes for Existing Conditions

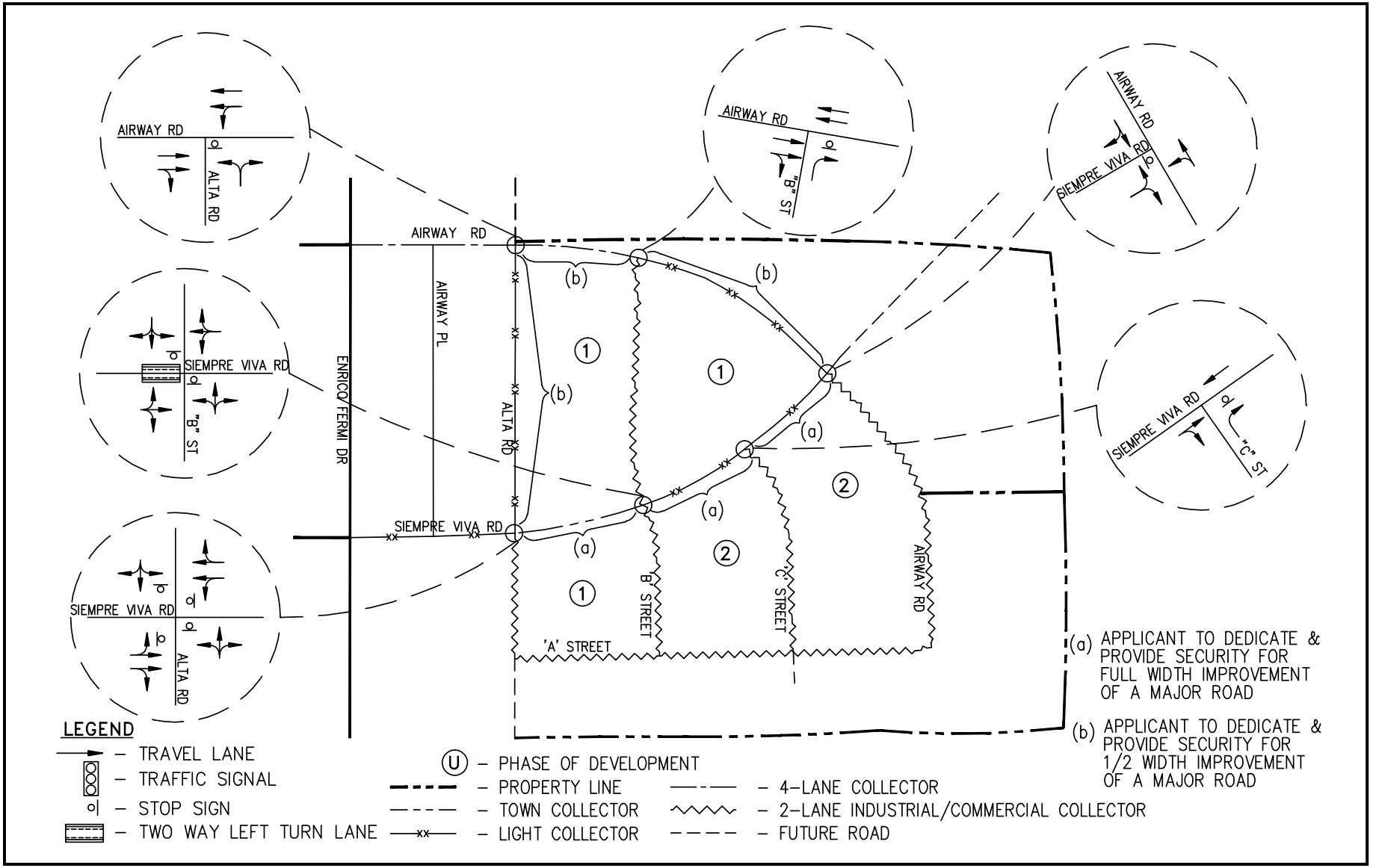


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-23

Existing Plus Project Phase 1 Internal Roadway Conditions

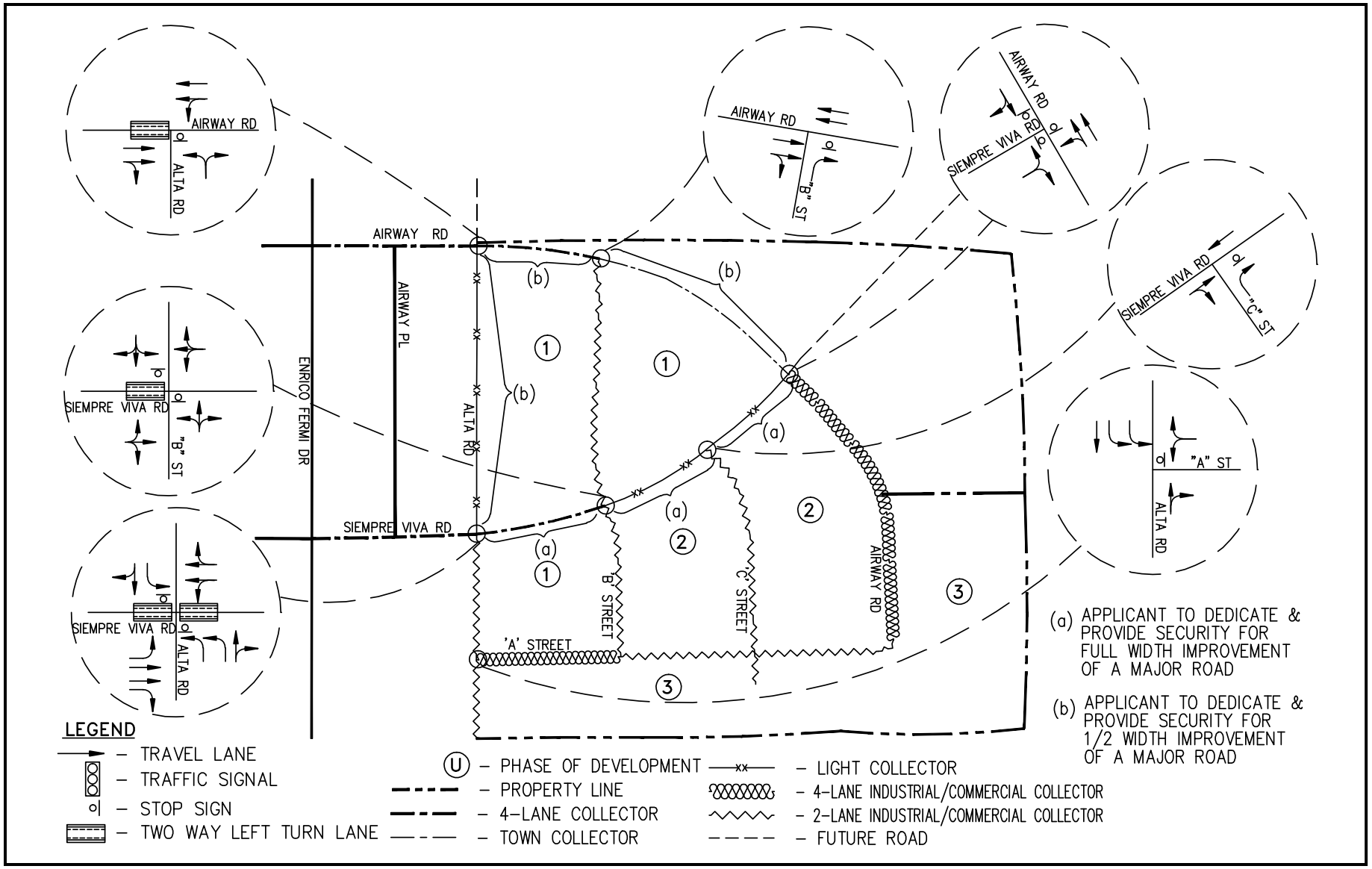


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-24

Existing Plus Project Phases 1 and 2 Internal Roadway Conditions

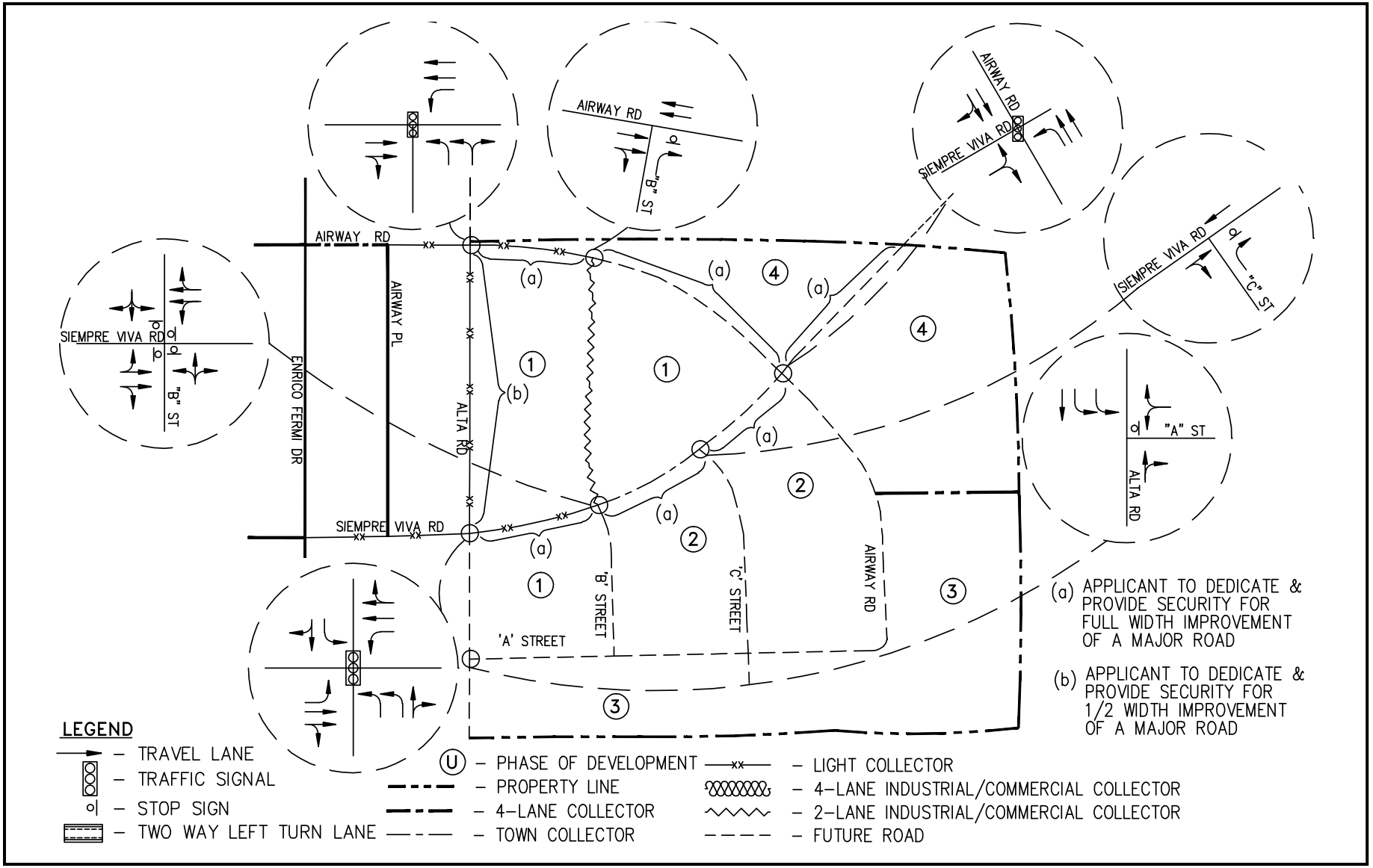


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-25

Existing Plus Project Phases 1 through 3 Internal Roadway Conditions

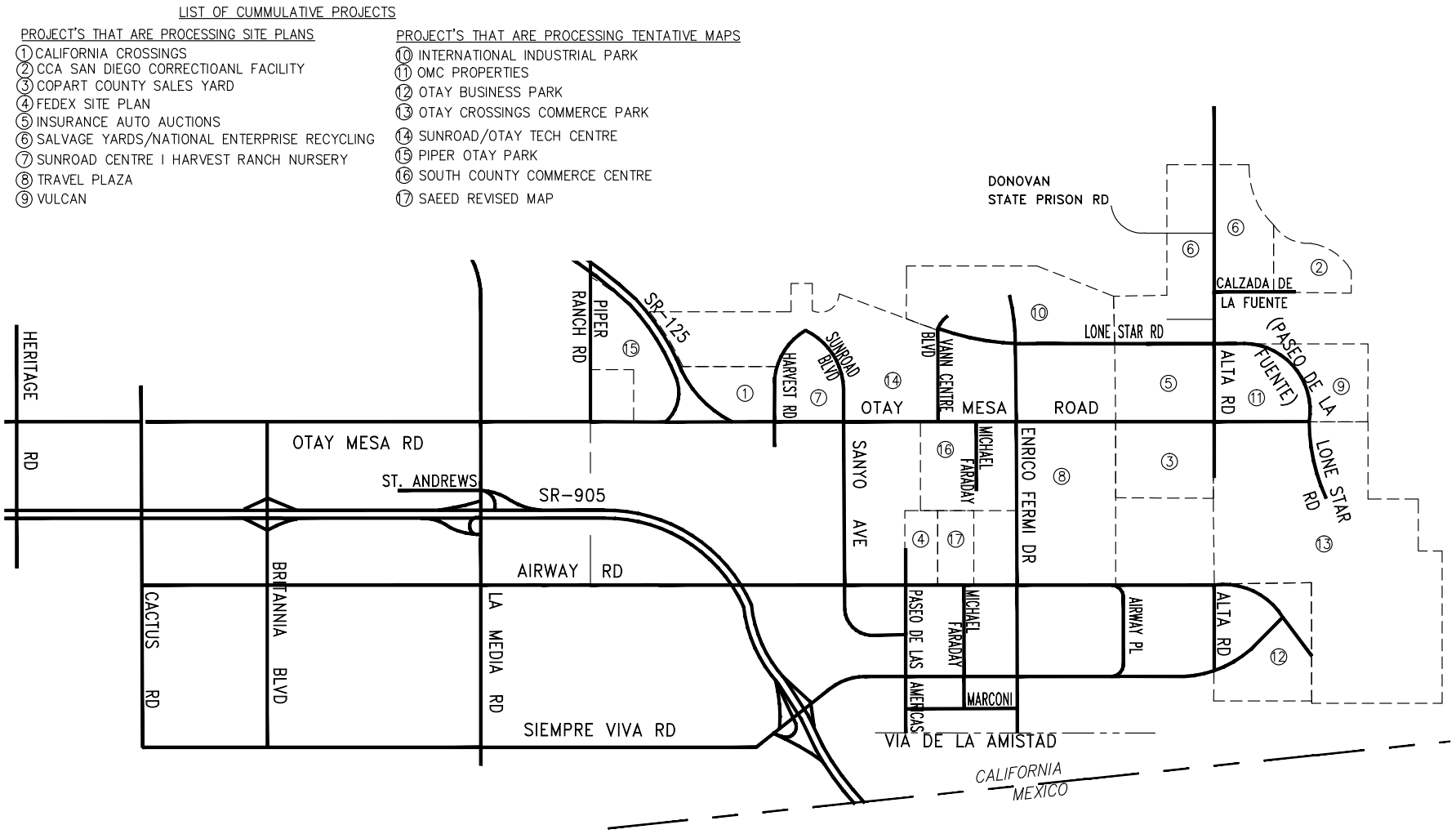


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-26

Existing Plus Project Phases 1 through 4 Internal Roadway Conditions

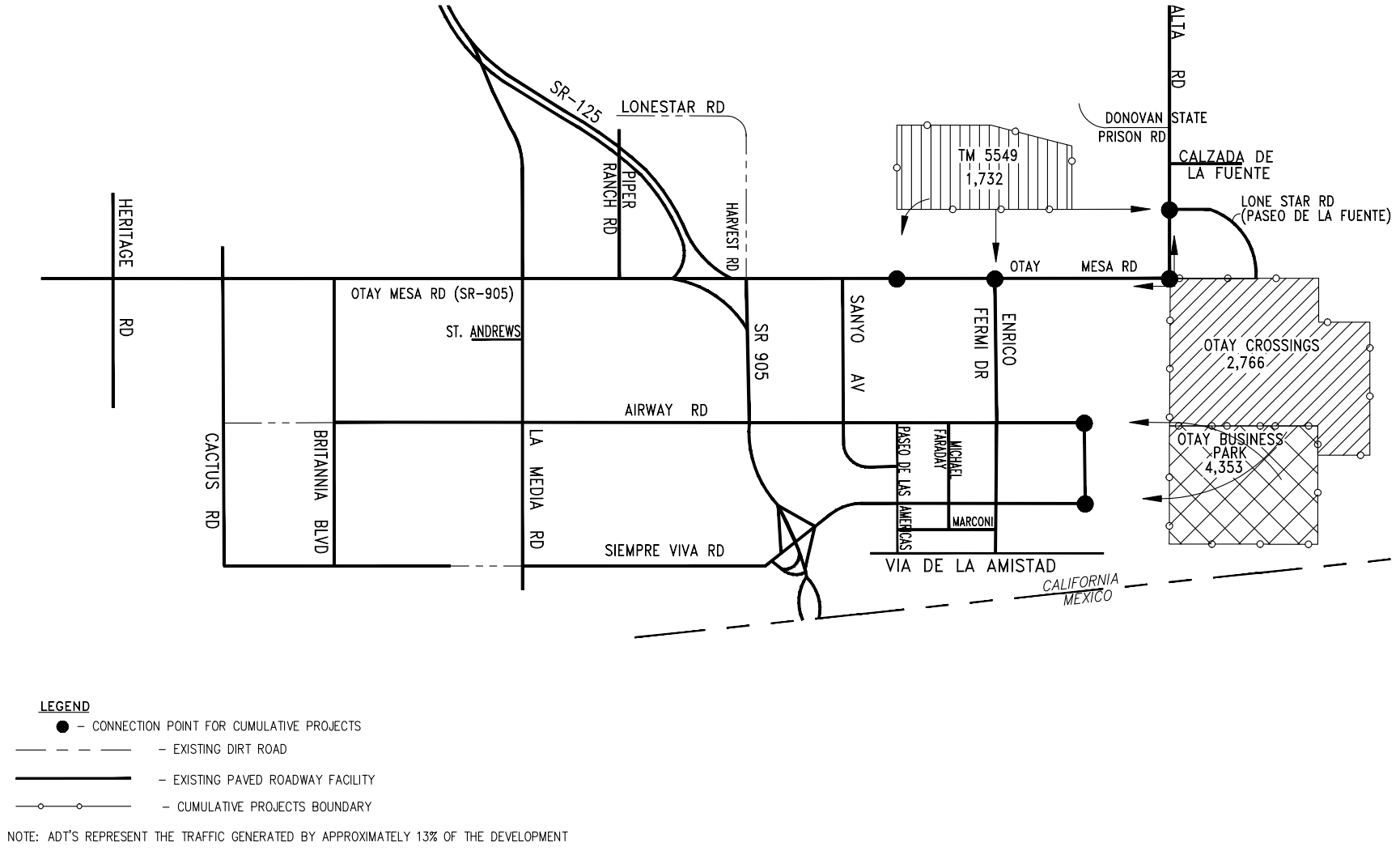


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-27

Cumulative Study Area - Transportation-Traffic

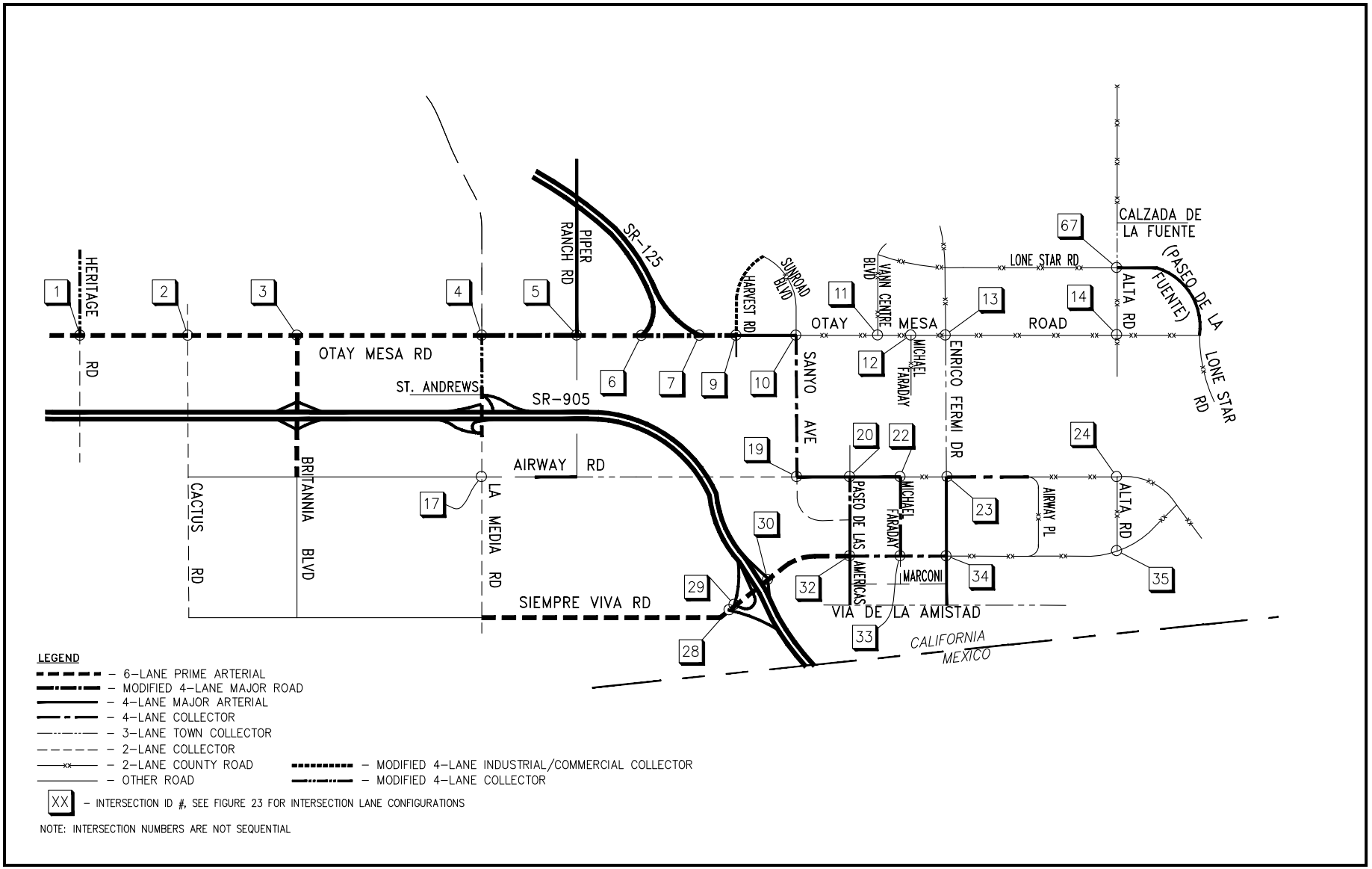


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-28

Anticipated Connections to Existing Circulation System for Cumulative Projects

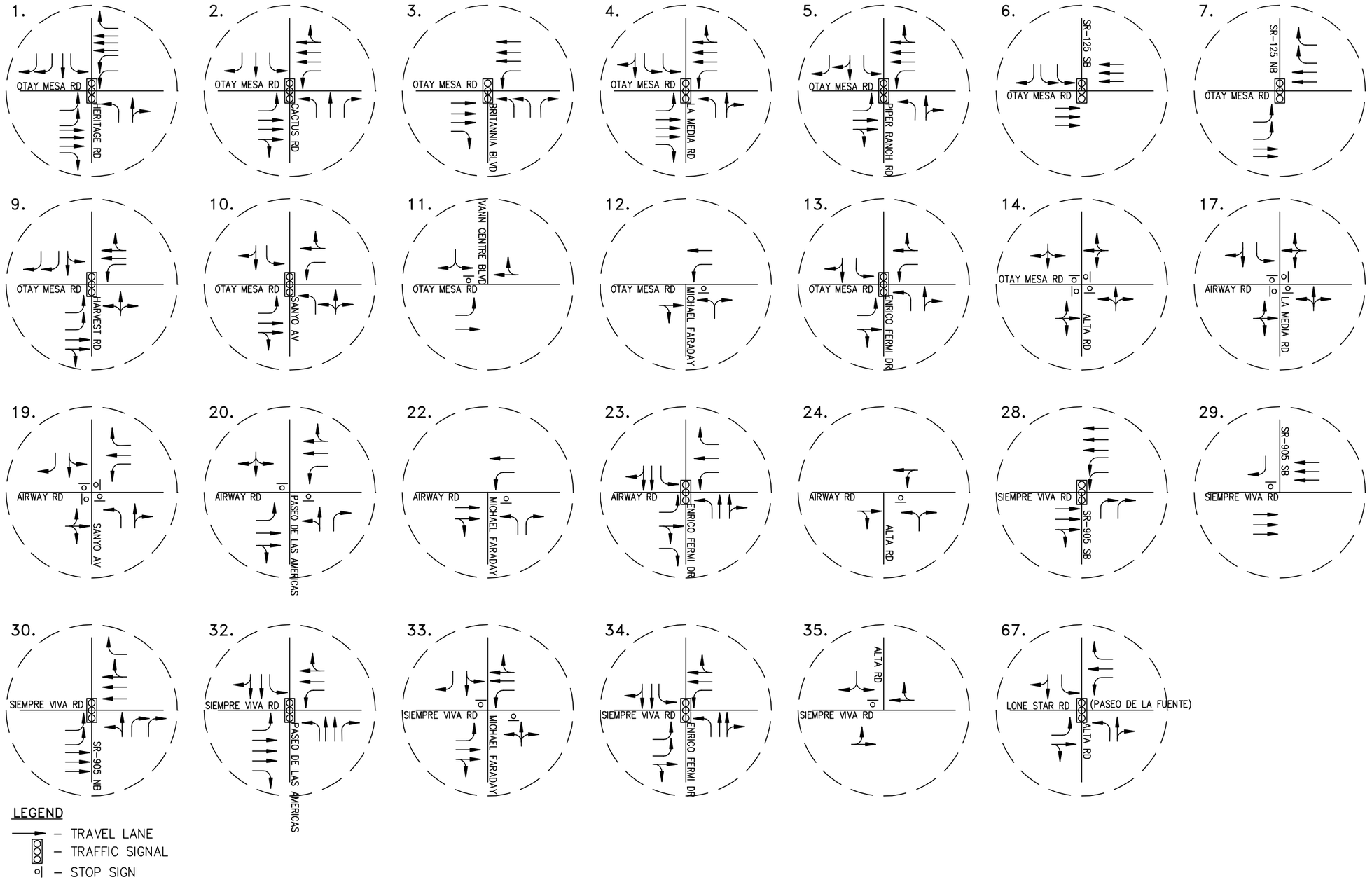


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-29

Cumulative (2020) with SR-905 Roadway Segment Conditions

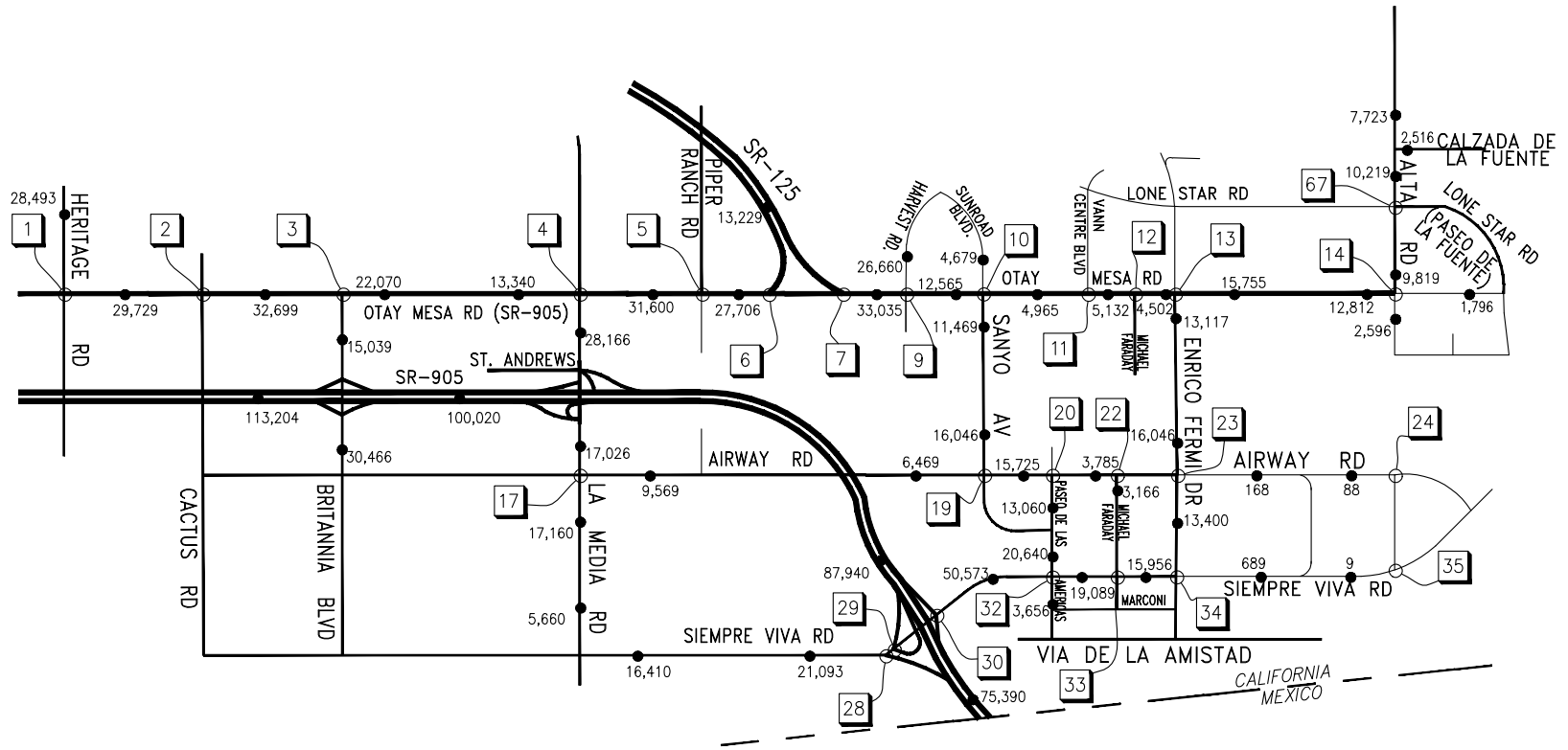


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-30

Cumulative (2020) with SR-905 Intersection Conditions



LEGEND

● Z,ZZZ – AVERAGE DAILY TRAFFIC

XX – INTERSECTION ID #, SEE FIGURE 25 FOR INTERSECTION PEAK HOUR TURNING VOLUMES

NOTE: INTERSECTION NUMBERS ARE NOT SEQUENTIAL

Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-31

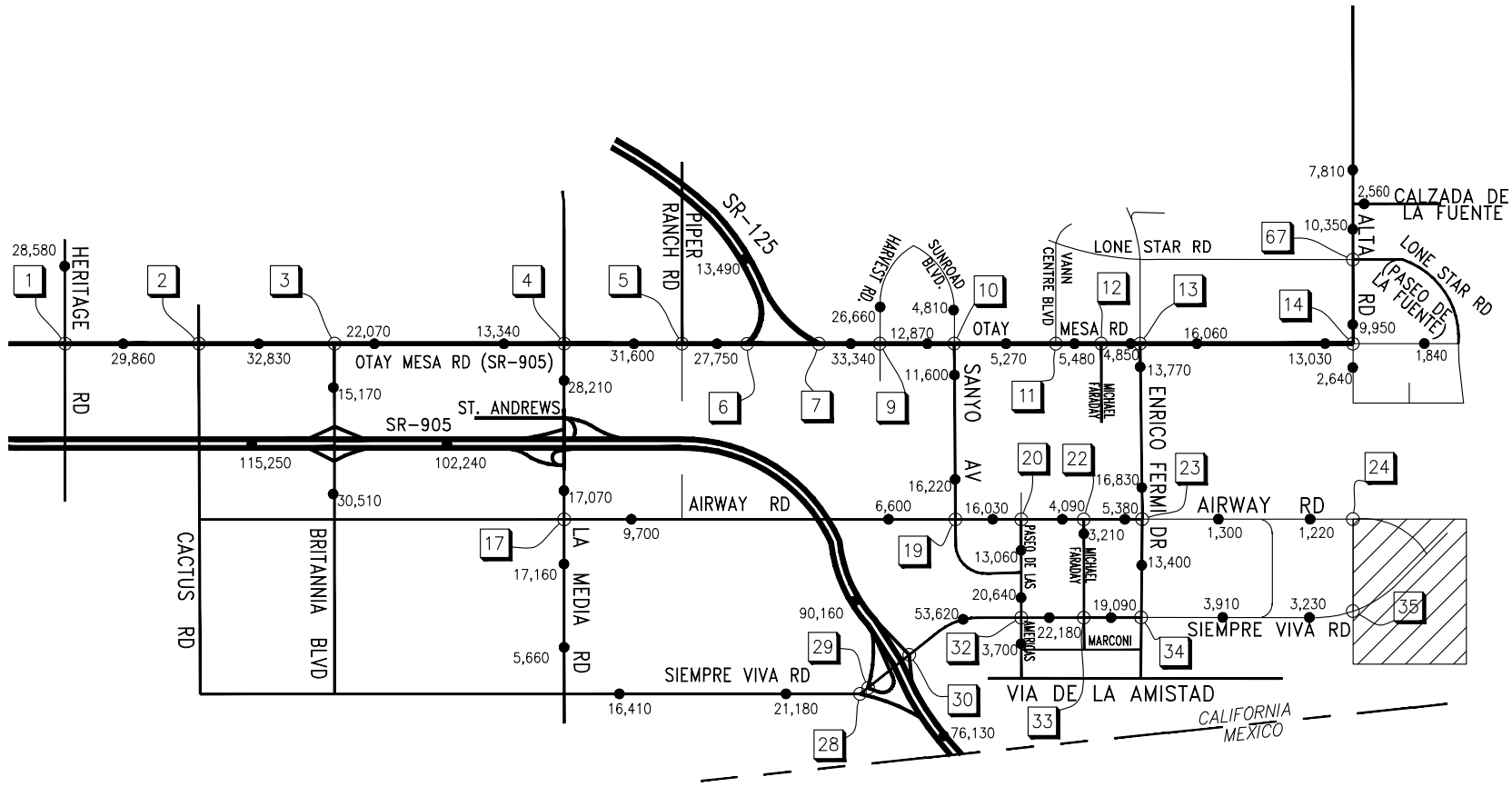
Cumulative (2020) with SR-905 without Project Daily Traffic Volumes

Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-32

Cumulative (2020) with SR-905 without Project Peak Hour Traffic Volumes



LEGEND

● Z,ZZZ – AVERAGE DAILY TRAFFIC

XX – INTERSECTION ID #, SEE FIGURE 27 FOR INTERSECTION PEAK HOUR TURNING VOLUMES

NOTE: INTERSECTION NUMBERS ARE NOT SEQUENTIAL

Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-33

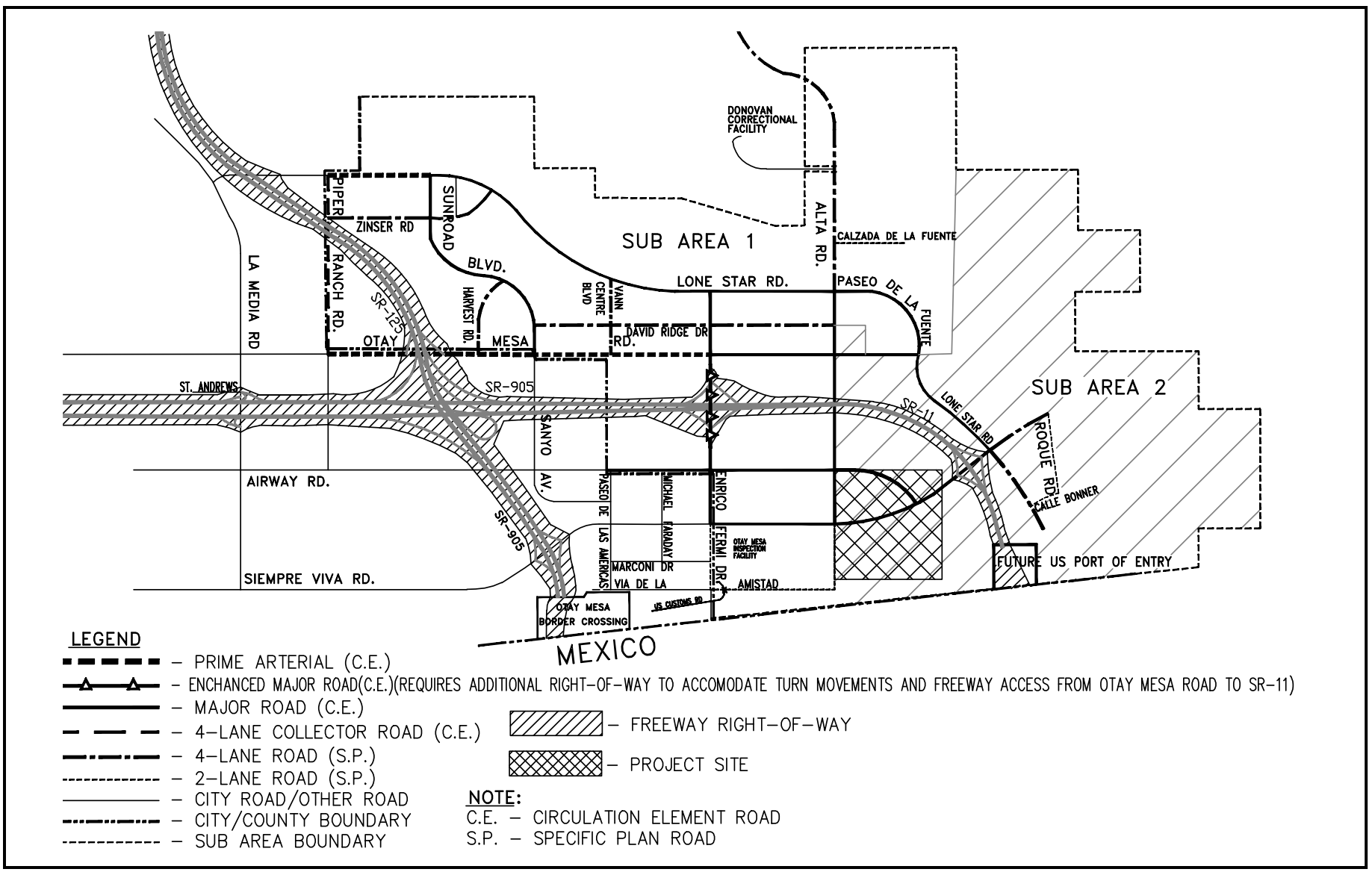
Cumulative (2020) with SR-905 with Project Daily Traffic Volumes

Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-34

Cumulative (2020) with SR-905 Project Peak Hour Traffic Volumes

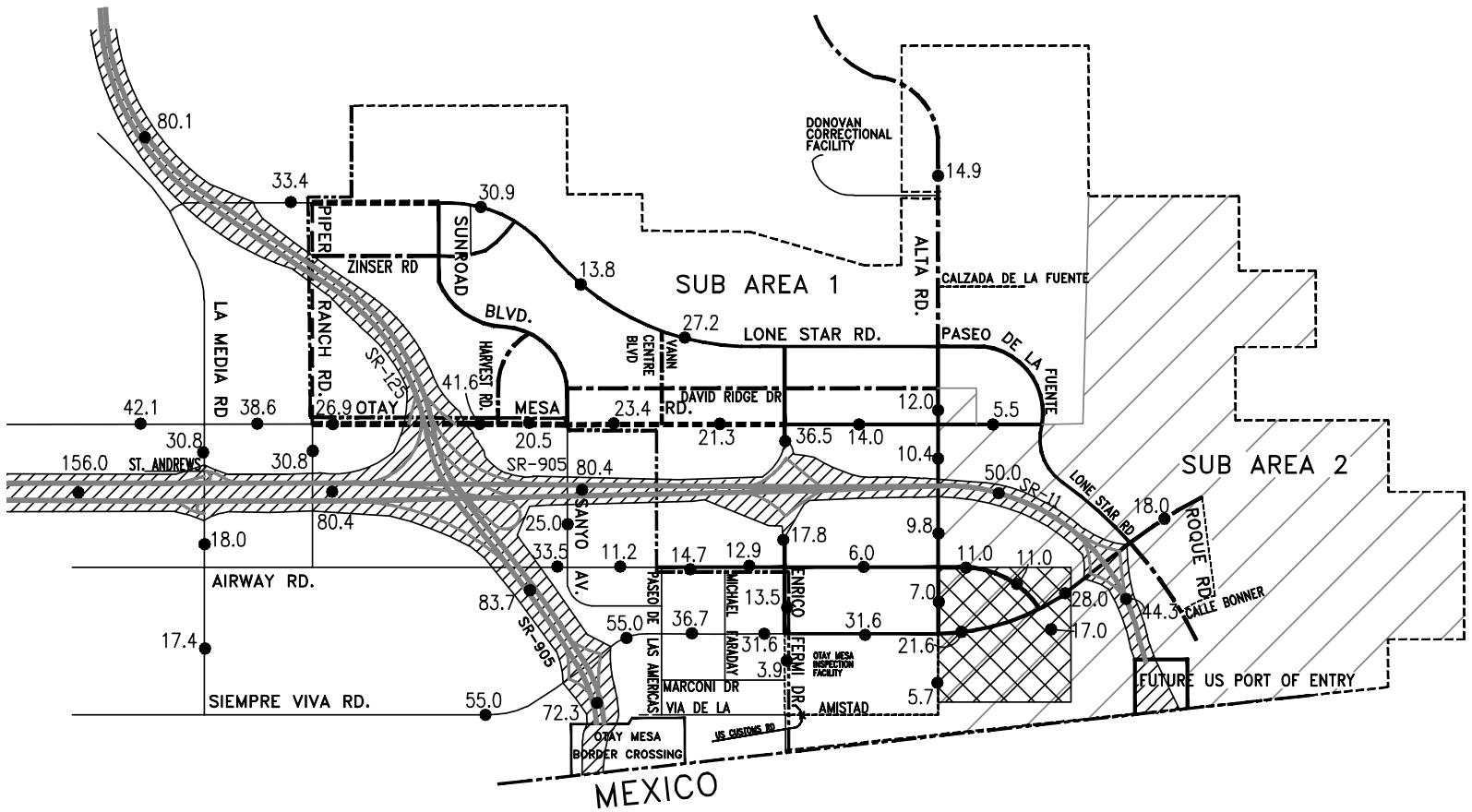


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-35

Adopted Circulation Plan for East Otay Mesa (2030 Conditions)

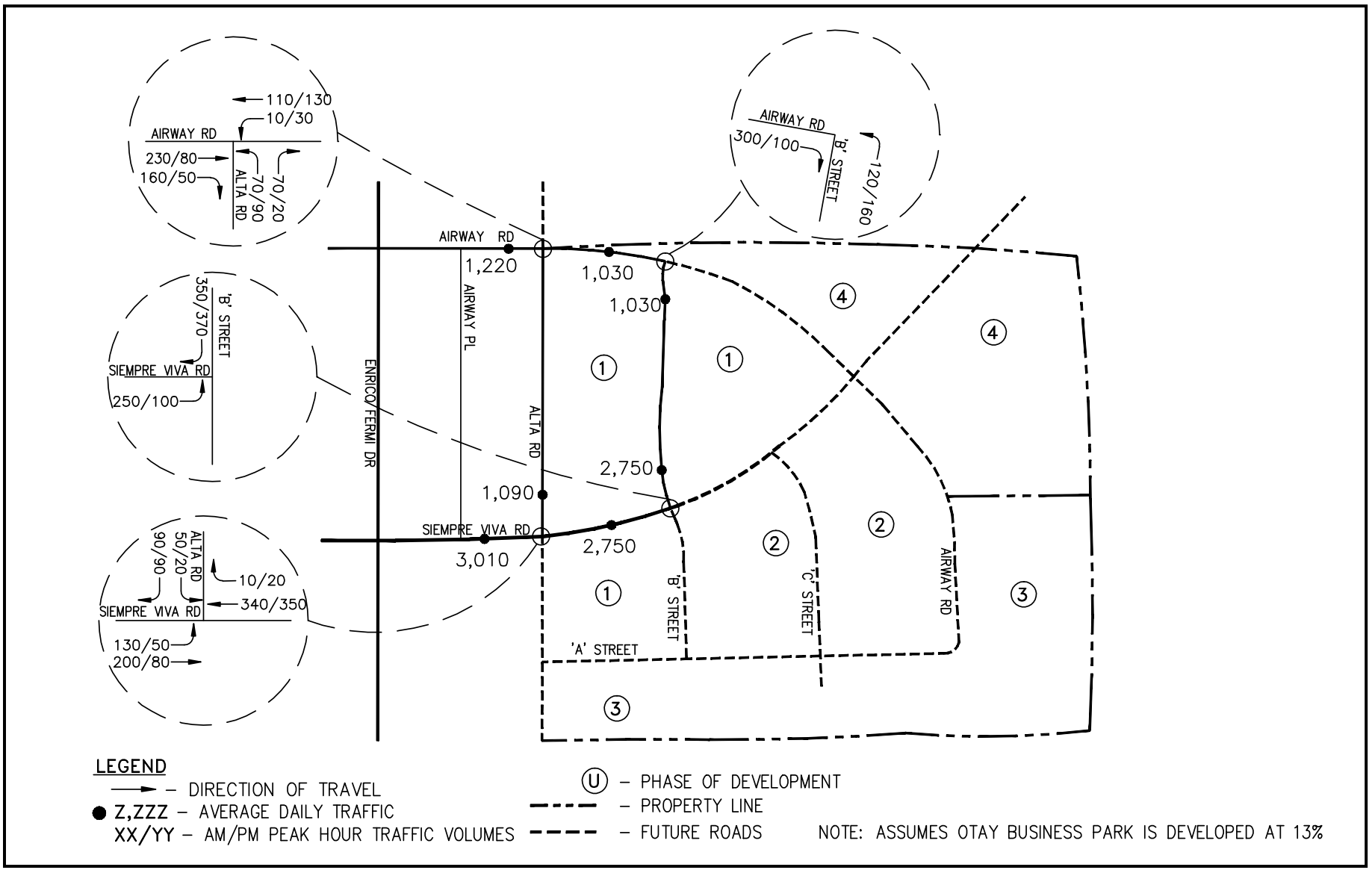


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-36

Adopted Circulation Plan Traffic Forecast - 2030 Plus Project Buildout

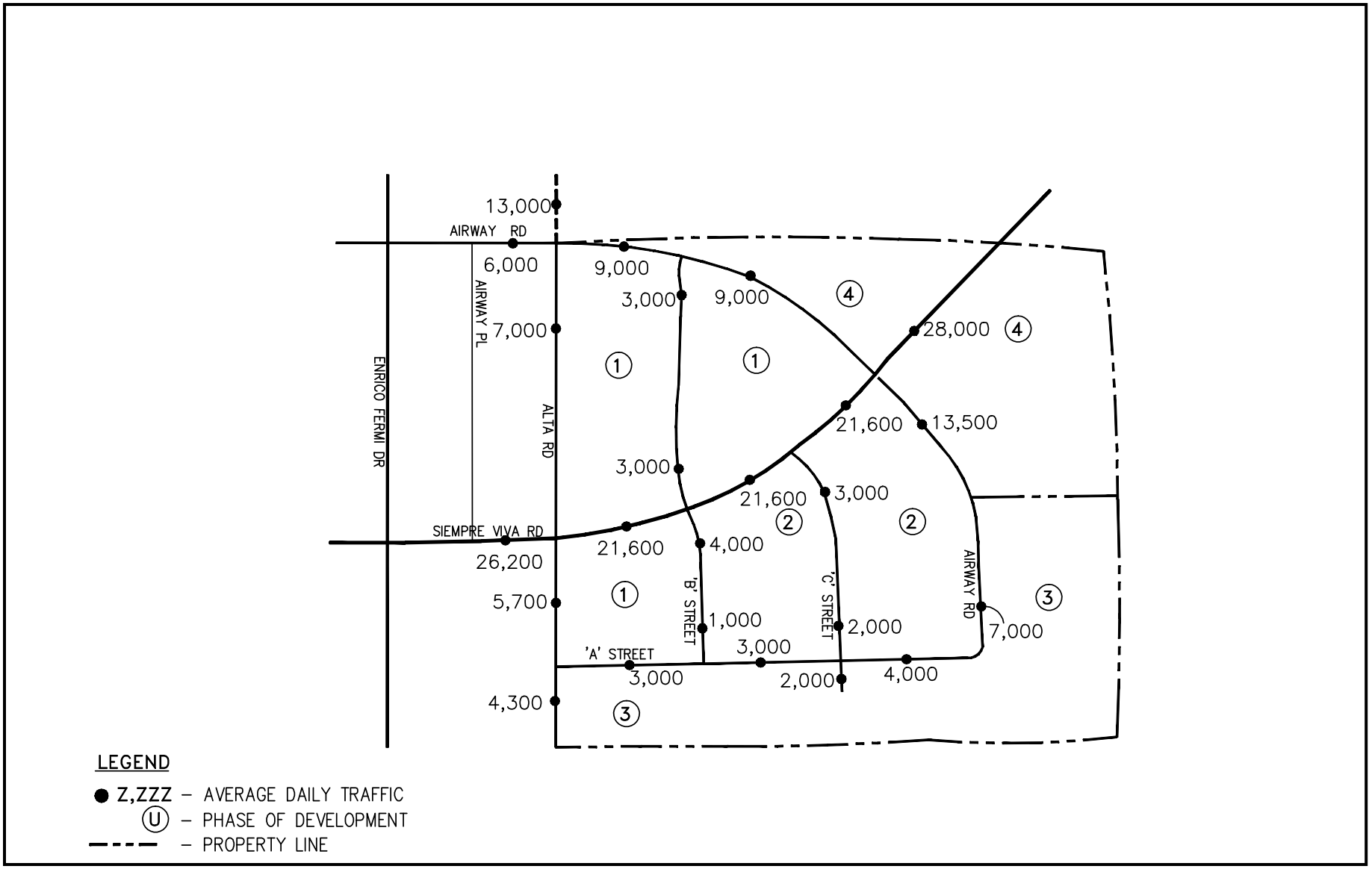


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-37

Cumulative (2020) with SR-905 with Project Buildout On-Site Traffic Volumes

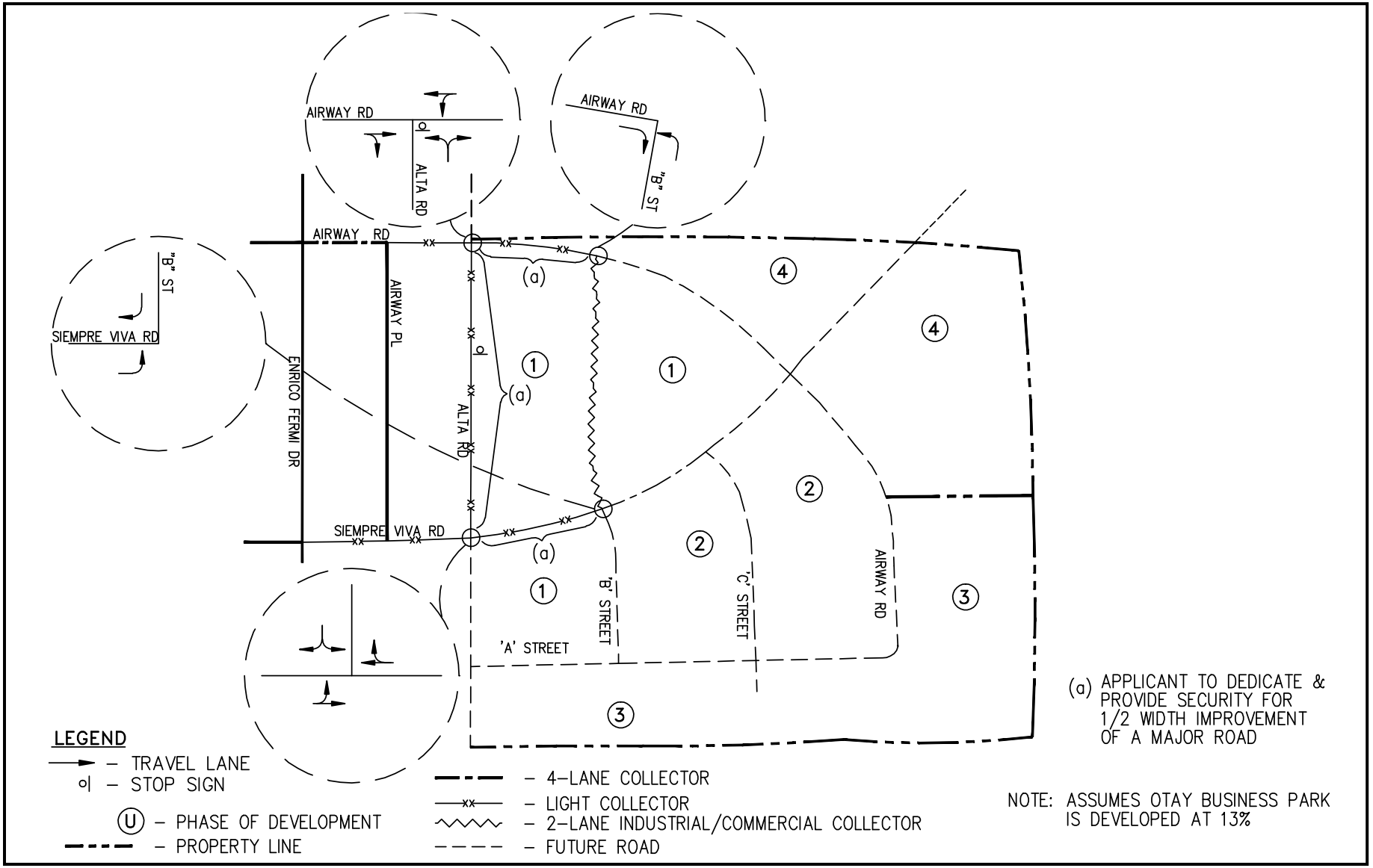


Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-38

Year 2030 Project Buildout Plus Cumulative On-Site Traffic Volumes



Source: Darnell & Associates, Inc. (09-20-10)

not to scale

FIGURE 2.7-39

Cumulative (2020) with SR-905 Plus Project Buildout Internal Roadway Conditions